BULLYING AND VICTIMISATION AMONG PRIMARY SCHOOL BOYS:

AN EXPLORATION OF RESPONSE SELECTION FROM A

SOCIAL INFORMATION PROCESSING PERSPECTIVE

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DECLARATION

I declare that this thesis is the result of my own research, except where other work has been acknowledged. This thesis (or any part thereof) has not been submitted for any higher degree to any other institution or university.

Jane Drinkwater

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ABSTRACT

Bullying and victimisation among school children is a pervasive problem with potentially serious implications for those directly and indirectly involved. To help better understand the bully/victim problem the aims of the current research were: to combine an exploratory investigation with a hypotheses-testing approach; to carefully identify children who tend to bully others, those who tend to be victimised, and children who are not involved; to examine the relationship between bullying and victimisation, and the processing mechanisms in the response access and response decision stages of the Crick and Dodge (1994) social information model; and to examine the impact of contextual factors, namely the target's identity in peer provocation situations, on these processing mechanisms.

Using a modified self report instrument as well as teacher nominations, three groups of boys were identified for study: 15 tending to bully others, 16 tending to be victimised by their peers, and 17 "normal" boys. These children were individually interviewed using a structured interview schedule and the hypothetical situation methodology. Two peer provocation scenes were developed with two identical scenarios each, except for the identity of the provocateur who was characterised as either a bully or a victim. Hypothetical aggressive, assertive and passive response strategies were also developed.

The dependent variables were response access or construction (the size of the response repertoire, the quality of first and second response choices), response evaluation (in terms of moral judgement), response outcome expectation (first outcome expectation, and desirability of that consequence), response efficacy, and response selection. For each scenario these variables were compared across groups, and for each scene they were compared across target identities.

While there were no differences in the number of responses bullies, victims and normal children generated, more bullies than non-bullies produced aggressive responses to peer provocation, particularly when the provocateur was identified as a

victim. Bullies also evaluated aggressive responses more positively than non-bullies. There were no differences between children's evaluations of assertive behaviours in response to peer provocation, and mostly no differences in evaluations of passive responses.

There were no differences in the number of outcome expectations children generated for aggressive, assertive and passive responses to peer provocation. All children expected mostly negative consequences of responding aggressively to provocation. However, when the provocateur was a victim, bullies valued their outcome expectancies for aggressive behaviour more positively than non-bullies. Normal children were more likely than others to expect that responding assertively would resolve the provocation situation, and all children valued their outcome expectancies of assertive behaviour more positively when the provocateur was a victim than a bully. Last, more bullies than non-bullies expected to be perceived negatively by others if they responded passively, particularly if the provocateur was a victim.

Bullies were more confident than non-bullies to respond aggressively to peer provocation, especially when the provocateur was a victim. Victims were more confident than bullies to respond passively to provocation when the provocateur was a bully. Bullies were also more likely to select aggressive response strategies, particularly when the provocateur was a victim, and less likely to select passive strategies than non-bullies. In only some peer provocation situations, normal children were more likely than others to select assertive responses.

In sum, these findings lend some support to the broad predictions that bullies, victims, and normal children will differ in their response access and response decision processes in peer provocation situations, and that these processes will be affected by the identity of the provocateur. However, due to the partially exploratory nature of the study, and several methodological limitations, these findings need to be replicated before any conclusions can be drawn.

CHAPTER ONE

Introduction

Bullying among school children is an old phenomenon (Olweus, 1994). However it was not until the early 1970s that it became a focus for systematic research. Most of the early research was conducted in Scandinavia (Olweus, 1973, 1978). In the 1980s bullying among school children began to receive attention in countries such as England (Stephenson & Smith, 1989), Ireland (O'Moore & Hillery, 1989), and the USA (Perry, Kusel & Perry, 1988). It was not until 1989 that attempts were made to study bullying among school children in Australia (Rigby, 1996). This research has been largely confined to South Australia, although in recent years there has been a marked increase in public interest in the topic of bullying and victimisation in schools. This has at times been accompanied by intensive media publicity.

Much of the early research on bullying among school children has provided a descriptive analysis of the extent and nature of bullying and victimisation. More recently research has begun to centre on factors contributing to the bully/victim problem. One aspect which has been little researched but may help to better understand the bully/victim problem because it has been shown to have a role in mediating children's social adjustment, is social cognition (Slee, 1993a). A social information processing perspective of bullying and victimisation among school children forms the focus of the present research.

Following is a brief description of bullying and victimisation, and an overview of factors related to, and contributing to, the bully/victim problem. A social information processing model of children's social behaviour is then presented, and its relevance to childhood aggression is reviewed. Finally, the application of a social information processing model to bullying and victimisation, and the possible mediating role of contextual factors in information processing is considered.

1.1 Bullying and Victimisation: Definition, Extent and Nature

There is general agreement that bullying among children is a reliably identifiable subtype of aggression (e.g. Slee, 1995; Smith & Thompson, 1991). Despite this, there have been various definitions of bullying in the literature (Tattum, 1993). It is agreed, that as with aggressive behaviour generally, bullying is characterised by intentional "harmdoing". A child who bullies others is aware of what he or she is doing, and he/she has a desire to hurt (Rigby, 1996). Three further factors most commonly identified as distinguishing bullying, are that it is unprovoked or without justification, that it occurs repeatedly and over time, and that there is an imbalance of power (physical or psychological) between the bully and the victim (Olweus, 1994). It is generally agreed that these behaviours define a child with a tendency to bully. A child is considered to be victimised if he or she repeatedly serves as a target for bullying behaviour. These are the definitions used in the present research. It should also be noted that the terms bullied and victimised are used interchangeably.

Bullying can involve a range of behaviours. Tattum, Tattum, and Herbert (1993) list five forms of bullying behaviour including physical bullying, verbal bullying, gesture bullying, extortion bullying, and exclusion bullying. Rigby's (1996) classification distinguishes physical bullying (e.g. hitting, beating, and kicking) from psychological bullying (e.g. verbal abuse, stalking, spreading rumours, and exclusion), and direct bullying (e.g. threatening and obscene gestures) from indirect bullying (e.g. getting others to insult someone).

Bullying can also range in severity. For example, physical bullying can range from a punch, to assault with a deadly weapon, and verbal bullying can range in severity from teasing, to abusive comments about a person's appearance or ability (Tattum, 1993). Bullying can also be carried out by one child or a group (Smith & Thompson, 1991).

In a study of South Australian school children aged 6 to 16 years, approximately 10% of students reported being bullied "often" or "more than once a week" (Rigby & Slee, 1991). These figures are consistent with those reported in overseas research (see

Olweus, 1994, for a review). In an Australian study by Slee (1993b) of 422 students aged 5-15 years, 8% indicated that they had bullied other children "once a month or more". This finding is consistent with other Australian (Rigby & Slee, 1991) and overseas research (for example, Whitney & Smith, 1993; see also Olweus, 1994, for a review).

As noted, duration has been identified as a component of bullying. In his survey of Australian students, Slee (1993a) found that while 50 % of bullying incidents lasted one to two days, 13% to 14% lasted 6 months or more. A more recent study by Slee (1995) found that for 17.1% of children who were bullied, the experience was reported to last 6 months or more.

Researchers have consistently found a clear and fairly steady decline with age in reports of being bullied (Rigby & Slee, 1991; see also Olweus, 1991). Less clear are the age trends in bullying others. It appears that there is a slight decline in girls with increasing age, but a slight increase in the number of boys who bully with age (Olweus, 1991). Bullies are generally the same age or older than their victims (Olweus, 1991).

Findings on gender differences show that boys are more exposed to bullying, and are more often involved in bullying others (Rigby, 1996; Olweus, 1994). Research also shows that boys are bullied almost entirely by boys, whereas girls are bullied by boys and girls. Finally, boys are more involved in physical forms of bullying such as hitting or kicking. However, there is a trend towards less use of physical means in higher grades. Girls are typically more involved in verbal and indirect forms of bullying, such as social exclusion and spreading rumours (Rigby, 1996).

1.2 Consequences of Victimisation and Bullying

Research on bullying and peer victimisation suggests that such behaviour can have a wide-ranging and potentially serious impact on victims, bullies, and the school environment. It must be noted, however, that much of the research in this area is correlational in nature, and as such precludes any conclusions regarding causality. Longitudinal and experimental designs are needed to test causal effects. This said,

following is a description of research related to the immediate and longer term correlates of bullying for victims and perpetrators. The impact on bystanders is also briefly acknowledged.

Studies of primary and secondary school students clearly show that victims of bullying suffer lower self esteem than non-victims (Rigby & Slee, 1992; Slee & Rigby, 1993a; Slee & Rigby, 1993b; Boulton & Underwood, 1992), and have been shown to have a more external locus of control than non-victims (Slee, 1993b). Further, Rigby (1996) reports that victims of bullying tend to be more isolated than their peers (see also Slee & Rigby, 1993a). Research also shows that victims are less happy at school than non-victims, and like school less than non-victims (Slee & Rigby, 1993a). For these reasons it is not surprising that victims of bullying are also at increased risk of absenteeism. Reid (1988) found that 15 % of persistent absentees reported bullying as their original reason for truanting. Although it has not been directly investigated, academic performance may also be expected to suffer.

In a study of 800 students aged 11-18 at 26 schools, Rigby and Slee (1994, cited in Healey, 1995) found that victims of regular bullying (15% of boys and 10% of girls) were twice as likely to suffer ill health as students who were not victimised. More than one third of boys and nearly half of girls who were victimised suffered some sickness. Slee (1995) also reported a strong association between depression as measured by the Depression Self Rating Scale and the tendency to be victimised. Slee (1995, p.61) writes that this finding "suggests depression is at the very least a concomitant of victimisation in primary school".

The most severe consequence of peer victimisation can be the actual suicide of the victim. There is no available data on the percentage of child and adolescent suicides that are a consequence of bullying, however there has been media publicity of young people who have suicided following prolonged experiences of bullying (Lane, 1989; Whitney, Nabuzoka & Smith. 1992; see also Rigby, 1996). Research also shows that 23% of boys and 40% of girls who are bullied have suicidal tendencies or impulses,

compared with rates of 12% and 21% respectively for the rest of the school population (Rigby & Slee, 1994, cited in Healey, 1995).

In addition to the immediate pain and suffering, longitudinal studies suggest that the effects of peer victimisation can be long lasting. Olweus (1992) reports that there is often continued low self esteem, and adults who have experienced bullying at school can also experience episodes of depression. Supporting the notion of generational continuity, Farrington (1993) found that children whose parents were victimised at school were more likely to be victimised than their peers. As noted, victims of bullying can also experience peer rejection which has been found to be a predictor of later adult disturbance (Parker & Asher, 1987).

Gilmartin (1987) found some evidence for negative psychosexual sequelae of chronic victimisation. Using retrospective data this research showed that 80% of 'love-shy' men (heterosexual men who found it difficult to establish relationships with women) had experienced bullying or harassment at school. Similarly, in an Australian study conducted by Dietz (1994), men and women victimised at school experienced more difficulties establishing intimate relationships, and were significantly more depressed than others.

Finally, although not directly tested, an Australian study suggests that there may be a link between peer victimisation and subsequent spouse abuse. In a survey of secondary school boys, results showed that those who were victimised more often were significantly more likely than their peers to support men being physically abusive of their wives (Rigby, Whish and Black, 1994).

In addition to the deleterious effect of bullying on the victim, such behaviour can also have serious implications for the perpetrator. The bullying and childhood aggression literature highlights that such behaviour is relatively stable over time (Olweus, 1978). As such, unless counteracted, this behaviour can have considerable continuity over time and lead to further undesirable outcomes.

In his study of peer victimisation and depression cited above, Slee (1995) found that being unhappy at school, disliking school, and depression, were also associated

with the tendency to bully others. Slee (1995) explains this finding in terms of the link between depression in boys and poor home relationships. Indeed, previous research has found a significant association between poor family functioning and the tendency to bully others (Rigby, 1993).

Studies have also shown that involvement in bullying at school is associated with antisocial behaviour later. A longitudinal study in Norway of secondary school students to age 24 years, showed that former school bullies were nearly four times more likely than non-bullies to have had three or more court convictions (Olweus, 1989). Eron, Huesmann, Dubow, Romanoff, and Yarmel (1987) in their 22 year longitudinal study found that children who were aggressive at 8 years were more likely than their less aggressive peers at age 30 to have had encounters with the law (driving and criminal offences), and to punish their children more severely, possibly raising a new generation of bullies. Eron et al. (1987) also found that aggression in childhood was associated with poorer intellectual achievement later.

Further, in a comprehensive review and analysis of the literature, Parker and Asher (1987) examined the oft-made claim that poor peer relationships in childhood predict adjustment problems in later life. Indices of problematic childhood peer relationships included aggressiveness, acceptance, and shyness/withdrawal, and were evaluated as predictors of later maladjustment, specifically, dropping out of school, criminality, and psychopathology. The writers conclude there is general support for the hypothesis that problematic childhood peer relationships are predictive of later maladjustment. They find clearest support for aggressiveness and low peer acceptance as predictors of dropping out of school and criminality.

In addition to the effects of bullying on the school children involved, it has been suggested that bullying can also have deleterious effects on bystanders (Rigby, 1996). Floyd (1987, cited in Hazler, Hoover & Oliver, 1991) found that observers can become vicarious bullies or victims. Through identification with those involved they recognise that they are also vulnerable and come to accept that the school environment is unsafe.

In sum, bullying and victimisation is a pervasive and significant problem. For these reasons, the importance of understanding the development of bullying and victimisation cannot be understated.

1.3 Factors Contributing to Bullying and Victimisation

While initial research on bullying focused on descriptive analysis, more recently research has begun to centre on factors contributing to the bully/victim problem. Much of this research, however, has focused on children with a tendency to bully others. It is generally recognised that bullying is a consequence of many factors and some writers have categorised factors influencing the extent of bullying behaviour into child, family, school and societal factors (for example, Smith & Thompson, 1991). Following is a brief summary of these findings. The limited research relating to those factors contributing to victimisation is also presented. It is noted that not all of this research is longitudinal in nature, and again caution must be taken in drawing conclusions regarding causality.

A child's temperament is one characteristic proposed to influence the extent of bullying behaviour. Children differ in temperament soon after birth and these characteristics are enduring (Smith & Thompson, 1991). Olweus (1980) found that a child with a "hot-headed" temperament is more likely to develop into an aggressive child compared to one with a quieter temperament.

Another characteristic related to the tendency to bully is the extent to which the child can experience empathy. A study by Boulton and Underwood (1992) found that only a quarter of children admitting to bullying their peers reported they felt unhappy or sad when they did so. Similarly, compared to non-bullies, significantly fewer children with a tendency to bully others said they thought victims of bullying would experience negative feelings. Olweus (1993) also identified that bullies have a more positive attitude to violence, and use of violence, than their peers.

In addition to the child characteristics presented above, Rigby (1996) identified the following constitution or personality factors as more typical of children with a

tendency to bully: a tendency to be bigger and stronger than average; aggressiveness; impulsivity; and low levels of cooperativeness.

It has long been assumed that family transactions play a crucial role in the development and maintenance of child behaviour problems (Minuchin, 1974). Research on the association between family transactions and child psychosocial development has tended to focus on two broad dimensions of family relations, namely, family affect and parental control.

Consistent with this, Olweus (1980) identified three important family relation factors in the development of bullying behaviour: a negative emotional attitude of the early primary caretaker toward the child, characterised by a lack of warmth and involvement; failure of the primary caretaker to set clear limits on aggressive behaviours towards others; and frequent use of power-assertive child rearing methods such as physical punishment and violent emotional outbursts (see also Patterson, DeBaryshe, and Ramsey, 1989).

Further, in a study of adolescent's perceptions of their family and parents as a function of their peer relations, Rigby (1993) found that young people who bullied others perceived their families psycho-social health as being poorer than did their peers (family functioning included measures of cohesion, affective expression, communication, behavioural control, the family's interaction with external systems, and value transmission). In their study of 8 to ll year olds, Bowers, Smith and Binney (1994) found that bullies were more concerned than their peers with power relations in the family, and lack of cohesion.

In addition to the child and family factors described, some writers have identified school factors as contributing to bullying behaviour (for example, Rigby, 1996). The incidence and nature of bully/victim problems can vary greatly between individual schools. For example, in a survey of 631 students from 3 primary schools, Slee (1993a) found significant school differences in terms of reported bullying. Children reporting bullying "everyday" ranged in frequency from 1% to 8%. Slee (1993a) also found significant school differences in children's perceptions of the school's response to

bullying, and children's reasons for not assisting victims. According to Smith and Thompson (1991), child and family factors will account for part of this but school environment is also an important factor in social behaviour. Indeed, Rigby (1996) identified three important aspects of the school environment as influencing children's peer relationships. These include school ethos or the predominant attitudes and beliefs about student behaviour, the educational climate or those influences that determine what and how children learn, and school policy as it relates to bullying.

The wider community and society have also been identified as important factors in influencing the extent of bullying behaviour (Rigby, 1996). Differences in the extents of bullying problems in Britain and Scandinavia, may reflect in part wider differences in societal attitudes to violence and the extent of social class differentiation. Cultural variation may also be influenced by the level of socioeconomic stress on families, degree of violence in the mass media, and the levels of violence and harassment in a society generally (Smith & Thompson, 1991).

As noted, far less research exists on factors contributing to the experience of peer victimisation (Pierce & Cohen, 1995; see also Perry, Kusel & Perry, 1988). It has been shown, however, that there is a small but significant group of children who repeatedly serve as targets for bullying (Olweus, 1978; Patterson, Littman & Bricker, 1967). Perry et al. (1988) also found that a stable propensity to be victimised was established by the time a child reached middle school. According to Rigby (1996), among children who are frequently victimised, the following characteristics are commonly found: they are physically less strong than others, timid, non assertive, introverted, have low self esteem, and have few friends.

With regard to the families of children who are victimised, Binney et al. (1994) found that victims showed a high and positive involvement with parents and siblings, to the extent that they described the victim child's family as "enmeshed". According to Rigby (1996), being enmeshed in an over-intense or over-involved family, the child fails to learn to interact effectively with the external world, and thus may be at greater risk of victimisation. In addition, there is some evidence that children's patterns of

attachment with their caregivers, which provides them with an internal working model of relationships, influences their relationships in childhood and adulthood (for example, Troy & Scroufe, 1987).

In conclusion, it is clear that bully/victim behaviour is multiply determined by such factors as basic personal characteristics, socio-cultural environment, family experiences, and school environment and situations (Rigby, 1996). One aspect that has been little researched as it relates to bully/victim behaviour is social cognition.

1.4 A Social Information Processing Model of Children's Social Behaviour

Social cognition has been shown to play a significant role in mediating children's social adjustment. Social cognitive approaches are based on the premise that social information processes are the mechanisms leading to social behaviours which form the basis for social adjustment evaluations by others (Dodge 1986).

Various social information processing models have been proposed that have made a significant contribution to the understanding of social adjustment. In 1986, Dodge described a social information processing model of children's social behaviour which has since been reformulated by Crick and Dodge (1994). According to the reformulated model, children bring to any social situation a set of biologically limited capabilities, and a memory bank of experiences and social knowledge. They receive various cues from their social environment and how they process these cues determines their behavioural response.

Crick and Dodge (1994) propose children engage in five mental processes or steps, before enacting competent social behaviours. These steps are: encoding of internal and external cues; interpretation and mental representation of those cues; clarification or selection of a goal; response access or construction; and response decision. According to Crick and Dodge (1994) information processing does not stop following behavioural enactment. They propose that there can be a recycling of the processing steps identified. Following is a brief description of each of these processes as described by Crick and Dodge (1994).

During the encoding and interpretation stages, it is proposed that children selectively attend to specific external and internal cues, and encode and interpret them. Interpretation of cues may include one or more independent processes such as the attribution of causality, attribution of intent, evaluation of goal attainment for any previous social exchange, evaluation of past performance, self evaluations and evaluations of others. These interpretational processes may be influenced by the experiences that the child brings to the social situation, and may also result in changes to that database of information.

Following the encoding of situational and internal cues, and interpretation of the situation, it is hypothesised that children clarify or formulate a goal for the situation. They may also choose to continue with a pre-existing goal. According to Crick and Dodge (1994), goals are focused arousal states that orient the child toward producing or wanting to produce a particular outcome. Goals can be internal (e.g. feeling happy) or external (e.g. retaliation against a peer) states or outcomes.

During the fourth step it is proposed that children access from memory a range of responses to the situation. If the situation is novel, however, children may construct new behavioural responses to the immediate cues. Crick and Dodge (1994) note that these responses are not necessarily triggered by the selected goal.

Next, it is proposed that children evaluate those responses accessed or constructed, and they select the response which is most positively evaluated for behavioural enactment. Various factors are said to be involved in children's response decisions: the expected outcome after using each response (outcome expectation); their degree of confidence in carrying out each response (response efficacy); their assessment of the appropriateness of each response (response evaluation); and their actual response selection. The final step is the behavioural enactment of the chosen response. As noted, there can then be a recycling through the processing steps.

1.5 The Relation Between Social Information Processing and Aggression: An Overview of the Literature

According to the model presented here, most simply, competent social behaviour is dependent upon the successful processing of the social information in any given social situation (Dodge & Crick, 1990). Much research has tested the relation proposed between specific social information processes and social adjustment, and provides significant support for the model. Various indexes of social maladjustment have been used including aggression, peer rejection, rejection and aggression, social withdrawal, and social avoidance. The majority of the research, however, has used aggression as its index. This research has shown that aggressive children, as a group, experience problems at every stage of the processing model, and that these deficits are related to aggressive behaviour. Following, research involving aggressive children and relating to each stage of the model is presented.

In a study by Dodge and Tomlin (1987), children were presented with hypothetical provocation situations and information about the intent of the peer. To assess the degree to which children relied on immediate social cues (the information presented in the story) or schema (mental structures from their past experiences), subjects were asked to infer the intent of the peer and to give their reasons for this decision. Dodge and Tomlin (1987) found that aggressive children were more likely to base their interpretations on schemata, that is information not included in the social stimuli presented, compared to non aggressive children. Aggressive children were also more likely than non aggressive children to base their interpretations on social cues occurring at the end of the social interaction, and were less likely to recall cues presented at the beginning of the provocation situation.

In addition, a study of pre-school boys by Gouze (1987) found that, compared to non-aggressive boys, aggressive boys focused their attention on aggressive cues more than non aggressive social cues. Dodge and Newman (1981) found that aggressive boys tended to respond more quickly to a social problem situation, and payed less attention to the available relevant cues. Specifically, they found that compared to non

aggressive children, aggressive boys used fewer social cues of any type in their interpretation of social situations. This is consistent with the Dodge and Tomlin (1987) findings cited above.

As noted, a child's interpretation of the social cues can consist of one or more independent processes. Most of the research on the interpretation stage has related to attribution of intent, and only findings relevant to this process will be presented here (see Crick & Dodge, 1994, for a review of research relating to other interpretation processes). As suggested, numerous studies have assessed the relation between aggression and intent attributions (for example, Dodge, 1980; Dodge & Frame, 1982; Guerra & Slaby, 1989; Waldman, 1996). Importantly, studies show that children's proposed behavioural responses are a function of the perceived intention of the peer rather than the portrayed intention (for example, Waldman, 1996).

Much of the research on intent attributions has used the hypothetical situation methodology, where subjects are presented with a series of scenarios involving ambiguous peer provocation. This research has shown that the relation between aggression and hostile attributional bias is robust (Crick & Dodge, 1994). Specifically, it has been found that aggressive children relative to their non aggressive peers are more likely to attribute hostile intent to their peer's behaviour when the actual intent is ambiguous (Guerra & Slaby, 1989; Dodge, 1980; Dodge, Pettit, McClaskey & Brown, 1986). This finding has also been demonstrated in children's processing for actual situations involving ambiguous provocation (Steinberg & Dodge, 1983). Finally, Dodge and Frame (1982) found that when aggressive subjects acted as observers to an event to a second peer, they did not exhibit a hostile attributional bias. Thus, they concluded that this effect is limited to situations where the aggressive child is the direct recipient of an outcome.

With regard to goal clarification, it has been hypothesised that children who construct and pursue inappropriate goals for social situations are likely to behave aggressively (Crick & Dodge, 1994). In their study of male and female adolescents incarcerated for antisocial aggressive offences, and high and low aggressive high

school students, Slaby and Guerra (1988) found that the incarcerated youths and high aggressive students were significantly more likely than the low aggressive students to adopt a hostile goal in response to a hypothetical story. Crick and Dodge (1989) also found that relative to their nonaggressive peers, aggressive children chose instrumental rather than relational social goals for peer group entry and peer conflict situations.

Various aspects of children's response access or construction have been examined. These include the number of social behaviours a child can generate in response to a given social situation, the nature of the responses, and the order in which the responses are generated (Crick & Dodge, 1994). Findings on the total number of responses aggressive and non aggressive children generate for challenging social situations appear somewhat mixed. Studies have shown that aggressive children compared to non aggressive peers generate fewer solutions to interpersonal problems (Richard & Dodge, 1982; Dodge et al, 1986; Slaby & Guerra, 1988). Guerra and Slaby (1989) however, failed to find a difference between high and low aggressive elementary school boys in the total number of solutions generated to hypothetical conflict situations. Deluty (1981) also found no differences in the number of alternative responses generated by children identified as assertive, aggressive and submissive to hypothetical interpersonal conflict situations.

There is evidence that children who are aggressive access and construct responses that are more aggressive and less prosocial than others (Crick & Dodge, 1994). This is held across a broad range of social contexts including provocation, peer group entry, and object acquisition (Richard & Dodge, 1982; Dodge et al, 1986; Guerra & Slaby, 1989; Waldman, 1996). Deluty (1981), for example, found that in hypothetical conflict situations, aggressive children identified more aggressive responses, and had a higher percentage of aggressive responses in their response repertoire, than children identified as assertive or submissive.

With regard to the sequence of generated responses, Guerra and Slaby (1989) found no difference between high and low aggressive elementary school boys' best solutions (both chose effective solutions), however, high aggressive elementary school

boys were more likely to choose a second best solution that was rated as "ineffective" (hostile and aggressive). According to Richard and Dodge (1982), it might be that the behavioural difficulties of aggressive children occur in situations when the initial solution is not sufficient, and an alternative response is necessary.

The response decision stage involves response evaluation, outcome expectation, response efficacy, and response selection (Crick & Dodge, 1994). Various studies have examined these processes.

It is hypothesised that favourable evaluations of social responses are positively related to carrying out that behaviour (Crick & Dodge, 1994). Deluty (1983) compared the response evaluations of children identified as assertive, aggressive, and submissive, in interpersonal conflict. Children rated assertive, aggressive, and submissive solutions on various "potency" and "evaluative" dimensions. Deluty (1983) found that compared with assertive and submissive children, aggressive children rated aggressive responses significantly more "good", "strong", "wise", "successful", "kind", and "brave".

With regard to outcome expectation, there has been support for the hypothesis that expecting a favourable consequence for a social response is positively related to behavioural enactment of that response (Crick & Dodge, 1994). Crick and Dodge (1989) found that aggressive children generated more favourable outcome expectations (e.g. the peer would not be mean to them), for verbally and physically aggressive response strategies in peer group entry situations. They also found that compared with their nonaggressive peers, aggressive children were more likely to generate negative outcomes (e.g. retaliation) for prosocial behaviours, such as compromise and assertion, in conflict and peer group entry situations (see also Deluty, 1983). Perry et al. (1986) also found that, compared to their non aggressive peers, aggressive elementary school children were more confident that an aggressive response would lead to a tangible reward and reduce aversive treatment by peers.

According to Crick and Dodge (1994), however, the findings regarding outcome expectations for physical aggression as opposed to verbal aggression are somewhat

mixed. Guerra and Slaby (1989), for example, found that both high and low aggressive elementary school boys generated mostly negative consequences in response to a hypothetical physically aggressive solution. However, the high aggressive boys were more likely to evaluate their affective reactions to these consequences by saying they "wouldn't care" and would not be "unhappy". Crick and Dodge (1994) suggested that further research is needed to clarify the issue of outcome expectations for physically aggressive response strategies.

There is also some support for the hypothesis that the number of possible reasonable consequences a child can generate for social responses is positively related to degree of social adjustment. For example, Guerra and Slaby (1989) found that high aggressive elementary school boys generated fewer consequences to a hypothetical aggressive response than their non aggressive peers.

It has been hypothesised that a child's perceived ability to perform a response is also related to behaviour (Bandura, 1977). This has been described as response efficacy, and it is thought that to choose a response, the child must feel confident that he or she can produce the response (Crick & Dodge, 1994). Aggressive children have been found to feel more confident than their non aggressive peers to perform physically and verbally aggressive responses (Crick & Dodge, 1989; Perry et al., 1986). Compared to non aggressive children, aggressive children have also reported lower efficacy for avoidant responses in peer conflict situations, and higher efficacy for prosocial responses involving direct assertive action in peer group entry situations (Crick & Dodge, 1989).

The final stage of the response decision is the selection of the most positively evaluated response for behavioural enactment. Response selection has been evaluated in much the same way as response access and the evidence suggests that aggressive children do select responses involving aggressive or non-normative behaviours more readily or more often than nonaggressive children (see Crick & Dodge, 1994).

Clearly, there is support for the relation between aggression, and deficits and breakdowns in social information processing. There are, however, also several limitations of the existing research.

First, in the studies presented, various definitions of aggression have been used to define the target samples. There is considerable evidence that aggression is a heterogeneous class of behaviours (Atkins & Stoff, 1993; see also Akhtar & Bradley, 1991). For example, classifications of children's aggressive behaviour have been based on the extent to which hyperactivity accompanies aggressive behaviour (Milich & Dodge, 1984), and the type of antisocial behaviour exhibited (Loeber & Schmaling, 1985). However, little research in this field has considered bullying per se as a sub-type of aggressive behaviour and, according to Slee (1995, p.57) "the category of aggression is too imprecise to be helpful in specifically understanding the nature of children's conflictual relationships".

A second limitation of the research to date is that little is known about the application of the model to other aspects of social behaviour, including peer victimisation (Crick & Dodge, 1994). While some research has considered peer rejection as an index of social maladjustment, there is strong evidence that peer victimisation is distinct from peer rejection, submission or withdrawal (Perry et al., 1988). As such it may be premature to draw conclusions about peer victimisation from this body of research. Further, while some studies have investigated the relation between peer rejection as a measure of social maladjustment and social information processing mechanisms, it must be noted that results were largely attributed to the aggressiveness of the rejected group. Thus, further research is needed to test the generalizability of the proposed model, and specifically to assess the social information processing patterns of children victimised by their peers.

A final limitation is that contextual factors have rarely been considered as possible mediating factors in the relation between social information processing and social adjustment. Specifically, the impact of target peer characteristics on the relation

between social adjustment and social information processing has received little attention (Crick & Dodge, 1994).

1.6 The Relation Between Social Information Processing and Bullying and Victimisation

As noted, the relation between social information processing and bullying and peer victimisation has been little researched. Existing studies on the effects of social cognition on bullying and victimisation are presented below.

Dodge and Coie (1987) have distinguished reactive (hostile) and proactive (instrumental) subtypes of aggression, and identify bullying as a further subtype of proactive aggression. Results of the Dodge and Coie (1987) study showed a qualitative difference in the attributional style of reactive aggressive children and proactive aggressive children. Reactive aggressive children had a hostile attributional bias, however, proactive aggressive children did not exhibit this processing deficit. These authors suggest that proactive aggressive children might be more likely to suffer social information processing deficits in their response access or construction as well as their response decision.

More recently, Crick and Dodge (1996) assessed the social information processing patterns of reactive aggressive (hostile), proactive aggressive (instrumental), and non aggressive children. Consistent with Dodge and Coie (1987), Crick and Dodge (1996) found that reactive aggressive children would attribute hostile intent to ambiguous peer provocations more often than non aggressive children and proactive aggressive children. This was consistent with their hypothesis that aggressive acts for reactive aggressive children are motivated by hostile interpretation of peer intent. Crick and Dodge (1996) also found that proactively aggressive children evaluated physically and verbally aggressive behaviour more positively than nonproactively aggressive children. This result is consistent with the hypothesis that proactive aggression is controlled and motivated by expectation of reinforcement. It also lends support to Dodge and Coie's (1987) hypothesis presented above that proactive aggressive children are more likely to

suffer social information processing deficits in their response decision. With regard to social goals, proactively aggressive children were less likely to endorse relationship enhancing goals than others, and preferred instrumental and self enhancing goals.

In sum, the above studies support the idea that there are distinct forms of aggression, and that social cognitive biases and deficits are differentially related to subtypes of aggressive behaviour. If bullying is considered a subtype of proactive aggression it might be hypothesised that such children also suffer social information processing deficits in their response access and response decision. It could be, however, that the classification of proactive aggression continues to be too broad to accurately understand bullying behaviour.

The only available study that has considered the effects of social cognition on bullying and victimisation per se is a preliminary two part study conducted by Slee (1993a). It must be noted however that Slee did not conceptualise his study in terms of the Dodge and Crick (1994) model presented here. Part one of the Slee study surveyed the nature and effects of peer group bullying among 631 Australian primary school children in years 5, 6 and 7. In the second part, 28 children who identified themselves as tending to bully others, 26 tending to be victimised by their peers and 22 "normal" children, were interviewed regarding their social problem solving capacities. To be interviewed children also had to be nominated by their teachers as belonging to these categories.

The procedure was as follows. Subjects were told a brief story to establish the reputational bias of the imaginary target peer as a bully. Subjects were then read a conflict story involving the imaginary target peer and the interviewee where the target peer (for no apparent reason) begins to bully the interviewee consistently over the week. Finally, subjects were asked a series of questions relating to the interpersonal conflict including their perception of the locus of control ("why would he pick on you"), number of solutions to the conflict, choice of best and second best solution, and consequences of responding aggressively to the conflict.

Slee's (1993a) study found that with regard to perception of locus of control (this could also be considered a measure of attribution of intent) bullies' responses were more strongly associated with external factors, responses of the normal children were more associated with internal factors, and victims' responses were a balance of internal and external factors. Slee explains this finding as possibly due to actor-observer differences (see Kelley & Michela, 1980, for a review), or to a defensive reaction in the bullies to a potentially threatening situation (individual interview).

Regarding the total number of solutions generated to the conflict, there was no significant difference between the three groups. However a trend was reported that bullies and victims reported fewer solutions with less range than normals. There was also no significant difference between the three groups regarding best solution (each group advocated non-aggression). However, the second best solution nominated by bullies was aggressive in contrast to the non aggressive second best solutions of victims and controls. It can be noted that these findings are consistent with research involving aggressive children presented earlier (see, for example, Richard and Dodge, 1982).

Finally, when they were asked what would happen if they responded to aggression with aggression, bullies feared that they would get into trouble, and victims feared that there would be some retaliation. As Slee (1993a) notes, this later finding is consistent with Perry, Williard, and Perry (1990) who found that children expected more tangible rewards, displays of pain and suffering, and less retaliation, when contemplating aggression toward a victim as opposed to a non-victim.

In summary, Slee (1993a) provides a preliminary investigation into the relation between social information processing and bullying and victimisation. Slee's study is one of few available studies that have considered victims (Pierce & Cohen, 1995; Perry et al., 1986; Perry et al., 1990), and that have interviewed children identified as bullies and victims (see also Boulton & Underwood, 1992). As noted, this research is also the only available study that has considered the social cognitive patterns of bullies and

victims when bullied, including attribution of intent, the size and content of the response repertoire as part of response access, and outcome expectation.

While opening up this field of inquiry there are also some limitations to this study. First, Slee (1993a) did not include measures of response efficacy or response evaluation which have been shown to be areas of deficit for children who are proactively aggressive of which bullying has been identified as a subtype (Crick & Dodge, 1996). Second, Slee (1993a) did not consider the possible role of contextual factors in social problem solving, specifically the target peer's identity. Finally, this study considered only one possible social response (aggression) to assess outcome expectation.

In view of these strengths and limitations, the next step in the investigation of the relation between social information processing and bullying and victimisation requires inclusion of measures of response efficacy and response evaluation. To provide a more complete understanding of this relation, a range of response strategies should also be investigated, including socially competent responses to bullying, such as assertive behaviour. Based on Perry et al.'s (1990) findings, it would also be interesting to explore victims' perceived consequences of the passive behaviours (displays of pain and suffering, lack of retaliation) that aggressive children have been shown to find rewarding. Finally, how bullies and victims process information about bully and victim peers requires investigation.

1.7 Contextual Factors in Social Information Processing

According to Dorsch and Keane (1994), contextual factors in social information processing have received little attention, despite claims that social-cognitive styles are specific to the situation and influenced by the context. Indeed, Dodge, McClaskey and Feldman (1985) argued that some aspects of maladaptive social information processing may be specific to particular situations for particular groups of children. These writers generated a taxonomy of problematic social situations for children and found the deficiencies of aggressive children were most prominent in peer provocation situations.

Although limited, there have been some attempts to examine context effects. Dorsch and Keane (1994) assessed the attributions and social problem solutions of accepted and rejected girls and boys using hypothetical vignettes embedded in a computer mathematics game. Dorsch and Keane (1994) examined three contextual factors including, interpersonal context (competition or collaboration), outcome (success or failure), and story type (ambiguous provocation or peer group entry). These writers found that the contextual factors differed in their impact on the dependent variables (attributions and social problem solutions). Subjects made more hostile attributions of intent in the failure condition and in the ambiguous provocation story. More aggressive social problem solutions were offered in the ambiguous provocation story. More boys than girls offered more aggressive solutions in the cooperation condition, and for the provocation story. Compared to accepted children, rejected children provided somewhat more aggressive solutions.

Dorsch and Keane (1994) conclude that contextual factors are important in social information processing and note that particular contextual factors differentially affect social information processes (ie. contextual factors that affect attribution are not necessarily the same ones that affect social problem solutions). They also suggest that use of different contexts in such experiments serves to elicit physiological arousal and affective responses, thus more closely approximating actual circumstances.

Indeed, Dodge and Somberg (1987) found that threatening environmental conditions have differential effects on the social-cognitive styles of aggressive and non aggressive boys. Results showed that compared to non aggressive boys, aggressive boys exhibit a hostile attributional bias and social cue interpretation deficits in peer provocation vignettes, and that these deficits are exacerbated with increased affective arousal (a condition of interpersonal threat).

Another attempt to examine context effects, and most relevant to the present research, has been to consider the impact of characteristics of the target peer on social information processing. Hymel (1986) found that children and adolescents varied their interpretations of peer behaviour as a function of whether they liked or disliked the

target peer, and the outcome of the behaviour performed, that is positive or negative. Specifically, subjects attributed more responsibility to liked peers when they performed positive behaviours than when they performed negative behaviours. This bias was not found for disliked peers. In addition, less responsibility was attributed to the liked peer performing a negative behaviour than when the same behaviour was performed by a disliked target peer.

Wass (1988) studied the social attribution styles of peer rejected high aggressive, peer rejected low aggressive, and normal children, in ambiguous peer provocation situations where the outcome was negative. Wass (1988) found that when given no social information, all rejected boys made more hostile attributions of intent and provided more hostile responses than normal boys. However, when provided with social information about the target peers past interactions with others and the subject themself, all groups made similar attributions.

In a further study of reputational effects, Wass and Honer (1990) found that compared to target peers described as popular, peers identified as unpopular were attributed more intent in conflict interactions and were seen as less justified in such interactions. Further, the unpopular target peer was rated as less likely to play nicely and was described more negatively than those target peers described as popular.

There is some evidence to suggest that target peer characteristics will influence attribution style. It is less clear though what effect target peer characteristics will have on other social information processes or on the relation between social adjustment and social information processing (Crick & Dodge, 1994). One study of note, however, is the Perry et al. (1990) study cited earlier.

Perry et al. (1990) explored the outcome expectations and outcome values of aggressive and non-aggressive children, of acting aggressively toward victimised and nonvictimised classmates. As reported above, they found children's outcome expectations differed according to the classmates identity. When the classmate was a victim as opposed to a non-victim, Perry et al (1990) found that children were more likely to value taking a tangible resource, and were less concerned about causing pain,

or retaliation. While aggressive and non-aggressive children differed in their outcome expectations and outcome values, aggressive children were no more affected by the victim/non-victim status of the target than the nonaggressive children. Perry et al.(1990) note however, that although the effects of target identity and subject status were additive rather than interactive, the most favourable outcome expectations and outcome values were reported by aggressive children when contemplating an aggressive act toward a victim classmate.

The above findings provide some evidence that "social information processing is a complex task that is affected not only by individual factors but also by the context for the assessment of social information processing" (Dorsch & Keane, 1994, p. 611). Based on the above research, it seems reasonable to suggest that bullies process information about their victims differently from information about non-victims, promoting use of aggression toward victims (see Crick & Dodge, 1994). Further, children who tend to be victimised may react differently when interacting with a bully than when interacting with a non-bully (see Perry et al., 1990). However, further research in this area is needed to understand better the bully/victim problem.

1.8 Summary and Research Questions

In Australia, bullying and victimisation is a relatively new field of research. Much of the research to date has been descriptive in nature and it is only recently that attempts have been made to examine factors contributing to bullying and victimisation. Little attention has been given to the possible role of social information processing mechanisms in understanding this phenomenon.

A significant relationship has been found between the processes described by Crick and Dodge's (1994) social information model and children's social adjustment. Much of the research that has tested this relationship, however, has used "aggression" as a definition of social maladjustment and has often failed to recognise that aggression is a heterogenous class of behaviours (Akhtar & Bradley, 1991). Indeed, little research has considered bullying, a subgroup of aggression, as an index of social maladjustment.

However, researchers have suggested that proactively aggressive children, of which bullying has been identified as a subtype, are more likely to exhibit processing deficits in their response access and response decisions, than in other information processing stages (Crick & Dodge, 1996).

In addition, far less is known about the applicability of the Crick and Dodge (1994) model to other aspects of social behaviour including peer victimisation. Finally, in the research that has considered the relationship between social information processing and social adjustment, the role of contextual factors has received little attention.

Therefore, the main aims of this research are: to carefully identify children with a tendency to bully others, children with a tendency to be victimised, and "normal" children; to examine the relationship between bullying and victimisation in school children, and their response access and response decision processing in peer conflict situations; to explore the role of contextual factors in these processing stages; and to gain understanding through individual interviews in an exploratory context nonetheless testing predictions based on Crick and Dodge's (1994) model and existing research.

The broad questions for this research are:

1. Do children with a tendency to bully others (bullies), children with a tendency to be victimised by their peers (victims), and children who neither bully nor are victimised("normal"), differ in their response access and response decisions in peer provocation situations?
2. Is the social information processing (specifically, the response access or construction and response decision process) of bullies, victims, and normal children modified by contextual factors of the peer provocation situation, namely the characteristics of the target peer? Specifically, do bullies "target" their victims?

1.9 Operationalization and Predictions

To address these broad research questions, it is proposed that three groups of children be targeted: children with a tendency to bully others; children with a tendency to be victimised by their peers; and "normal" children. To preclude any confounding effects deriving from sex differences only boys will be included in the sample. Indeed, research has shown that bullying and victimisation is more prevalent among boys.

It is intended that self report and teacher nominations be used to identify the target samples. Teacher nominations of victims have been shown to correlate highly with self report questionnaire responses (Ahmed & Smith, 1990). In a review of the literature, Hymel and Franke (1985, cited in Slee & Rigby, 1993a), also report that children's self reports are valid in terms of undesirable characteristics regarding themselves.

To enable the concurrent assessment of the range of mechanisms involved in children's response access and response decisions it is proposed that children be individually interviewed. Few studies have carefully selected and interviewed bullies and victims (see Slee, 1993a). Further, given the lack of previous research in this area, interviews will also allow for children to generate responses that are meaningful to them, and will provide a unique insight into children's response access and response decisions.

Based on the social information processing research, the hypothetical situation methodology should be used. As noted, socially maladjusted children tend to have most difficulties in situations involving social success, such as peer provocation. To make the context most relevant to social success the scenarios should then include peer onlookers. To assess the role of contextual factors, specifically peer characteristics, in children's social information processing, two identical scenarios except for the identity of the provocateur should be included. The two identities should be a bully and a victim. To examine the reliability of children's processing "styles", a second set of scenarios should be included.

In each scenario, the intent of the target peer should be ambiguous and the outcome for the child should be negative, as research has shown that social-cognitive

deficits will be most prominent in these cases (see, for example, Wass, 1988). Finally, it is also proposed that scenarios involving only ambiguous physical aggression be included for simplicity of design.

This research is aimed to provide a comprehensive exploration of the various processing mechanisms involved in the response selections of bullies and victims in hypothetical peer provocation situations. However it is also guided by a theoretical rationale and previous research.

The broad predictions for the current research are based on the following conclusions: biased and deficient social information processing is related to deviant social behaviour and in turn social maladjustment; different subgroups of aggressive children display different patterns of information processing deficits; socially maladjusted children experience most difficulties in situations related to social success, such as peer provocation; and contextual factors impact on social information processing.

The broad predictions are as follows:

1. Children with a tendency to bully, children with a tendency to be victimised and normal children will demonstrate differences in their response access or construction and response decisions in peer provocation situations.
2. The response access and response decision processes of children with a tendency to bully, children with a tendency to be victimised and normal children with be differently affected by the characteristics of the peer provocateur.

The specific predictions follow. The theoretical rationale is described for each set of predictions. Where previous research is cited the prediction is either directly related to, or is generalised from, these findings. For some predictions, the research that has tested the theory is limited.

Response access or construction

These predictions are based on the hypothesis that the number and type of social responses children generate to a particular situation is positively related to the behaviour they exhibit in those situations (see Crick & Dodge, 1994). Thus, socially maladjusted children may have limited repertoires from which to select a response, and those behavioural repertoires may consist of primarily maladaptive behaviours (see Crick & Dodge, 1994). In addition, these predictions are also based on the hypothesis that the number and type of social responses children generate in peer conflict situations is affected by characteristics of the target peer. This hypothesis is generalised from previous findings on the effects of target identity on other social information processes (see Perry et al., 1990).

1. Bully and victim subjects will generate fewer responses to peer provocation than controls (see Richard & Dodge, 1982).
2. a. Bully subjects will generate more aggressive first responses to peer provocation than victim or control subjects (see Deluty, 1981).
   b. Bully subjects will generate more aggressive responses when the provocateur is identified as a victim as opposed to a bully. This is also based on the observation by Olweus (1993) that bullies have a strong need for power and dominance over those weaker than themselves.
3. Bully subjects will nominate more aggressive second response choices than victim and control subjects (Slee, 1993a, see also Richard & Dodge, 1982).

Response evaluation

The following predictions are based on the hypothesis that favourable assessments of a social response, based on moral rules or values, are positively related to behavioural enactment of that response (Crick & Dodge, 1994). Hence, socially maladjusted children may evaluate maladaptive behaviours favourably and adaptive behaviours less favourably (Crick & Dodge, 1994). These predictions are also based on the hypothesis that response evaluation in peer conflict situations is affected by the

identity of the peer. Again, this has been generalised from previous research on the effects of target identiy on other social information processes (for example, Perry et al, 1990; Wass & Honer, 1990).

4. a. Bully subjects will rate aggressive responses more positively (i.e. in terms of moral judgement - "rightness") than victim or control subjects (Olweus, 1993; see Crick & Dodge, 1996)

   b. Bully subjects will rate aggressive responses more positively when the target peer is a victim as opposed to a bully (see Perry et al., 1990).

   c. Control subjects will rate assertive responses more positively than bully or victim subjects (see Deluty, 1983).

   d. Victim subjects will rate passive responses more positively than bully or control subjects. This is also drawn from the suggestion that victims may experience a sense of learned helplessness (Slee, 1993b), and that they are more insecure and cautious than others (Olweus, 1994).

   e. Victim subjects will rate passive responses more positively when the target peer is a bully as opposed to a victim.

Outcome expectation

The following predictions are based on the premise that the number of outcomes children generate for social behaviours is positively related to degree of social adjustment (see, for example, Guerra & Slaby, 1989; Slaby & Guerra, 1988). These predictions are also based on the hypothesis that the number of consequences children generate to responses for managing peer conflict is related to the identity of the provocateur. This hypotheses has been generalised from previous research findings on the role of target identity in outcome expectation (Perry et al., 1990).

5. a. Bully subjects will generate fewer outcome expectations for aggressive responses than victim or control subjects (see Guerra & Slaby, 1989).

   b. Victim subjects will generate fewer outcome expectations for passive responses than bully and control subjects. This is also based on the suggestion by Olweus

(1978) that victims tend to be submissive, and that they commonly react by withdrawal (Olweus, 1994).

c. Bully subjects will generate fewer consequences for aggressive response strategies when the provocateur is identified as a victim as opposed to a bully.

d. Victim subjects will generate fewer consequences for passive response strategies when the provocateur is identified as a bully as opposed to a victim.

6. a. Victim subjects will expect more outcomes related to threat to self and retaliation for aggressive response strategies than bully subjects (Slee, 1993a).

b. Bully subjects will generate more punishment outcome expectations for aggressive response strategies than victim subjects (Slee, 1993a).

The underlying hypothesis of the next predictions is that expectation of a desirable outcome for a specific social behaviour is positively related to behavioural enactment of that response (Crick & Dodge, 1994). Thus, socially maladjusted children may expect more desirable outcomes for maldaptive behaviours and less desirable outcomes for adaptive responses (see Crick & Dodge, 1994). These predictions are also based on the hypotheses that outcome values in peer conflict situations are affected by the identity of the peer (Perry et al, 1990).

7. a. Bully subjects will evaluate their perceived consequences of aggressive response strategies more favourably than victim or control subjects (see Guerra & Slaby, 1989).

b. Victim subjects will evaluate their perceived consequences of passive response strategies more favourably than bully or control subjects (see Crick & Dodge, 1989)

c. Bully subjects will evaluate their perceived consequences of aggressive response strategies more favourably when the provocateur is identified as a victim as opposed to a bully (see Perry et al., 1990).

d. Victim subjects will evaluate their perceived consequences of passive response strategies more favourably when the provocateur is identified as a bully as opposed to a victim.

Response efficacy

The following predictions are based on the hypothesis that to select a response for enactment, children must believe that they can produce the behaviour (Crick & Dodge, 1994). Thus, maladjusted behaviour may be related to feeling confident to perform inappropriate behaviours, or a lack of confidence to perform appropriate behaviours (Crick & Dodge, 1994). Again, these predictions are also based on the hypothesis that confidence to perform specific behaviours in response to peer provocation is affected by the identity of the target peer. This hypotheses is derived from previous research that has shown that target characteristics affect other processing mechanisms (for example, Dodge & Frame, 1982).

8. a. Bully subjects will feel more confident performing aggressive response strategies in response to peer provocation than victim and control subjects (see Crick & Dodge, 1989).

   b. Bully subjects will feel more confident performing aggressive response strategies when the provocateur is identified as a victim as opposed to a bully.

   c. Bully subjects will feel more confident performing assertive response strategies than control subjects, who would feel more confident than victim subject (see Olweus, 1978; see also Crick & Dodge, 1989).

   d. Victim subjects will feel more confident performing passive response strategies than control subjects, who would feel more confident than bully subjects (see Crick & Dodge, 1989).

   e. Victim subjects will feel more confident performing passive response strategies when the provocateur is identified as a bully as opposed to a victim.

Response selection

The following predictions are based on the hypothesis that socially maladjusted children make response decisions that lead to an attempt to enact behaviour that is maladaptive (Crick & Dodge, 1994).

9. a. Bully subjects will be more likely to select aggressive response strategies to manage peer provocation than victim and control subjects (see Crick & Dodge 1989).

   b. Bully subjects will be more likely to select aggressive response strategies when the provocateur is identified as a victim as opposed to a bully.

   c. Control subjects will be more likely to select assertive response strategies than victim and bully subjects (see Deluty, 1981; see also Crick & Dodge, 1989).

   d. Victim subjects will be more likely to select passive response strategies than control subjects, who would be more likely to select these responses than bully subjects.

   e. Victim subjects will be more likely to select passive response strategies when the provocateur is identified as a bully as opposed to a victim.

CHAPTER TWO

Method

2.1 Pretest

The aim of this pretest was to identify the sample for study. Specifically, to identify children with a tendency to bully others, those with a tendency to be victimised by their peers, and "normal" children, that is, those who neither bully others nor are victims of bullying.

2.1.1 Subjects

Subjects were 147 boys in Years 5 and 6 from 10 government primary schools in the Australian Capital Territory.

2.1.2 Materials

A questionnaire developed by Rigby and Slee (1991) to assess children's tendency to bully, to be victimised, and to relate to others in a prosocial manner was modified for the current study. Rigby and Slee's original measure comprised four items relevant to each dimension of interpersonal relating. These dimensions have been identified as factorially independent in studies of secondary (Rigby & Slee, 1992) and primary school children (Slee & Rigby, 1992). In the study of high school students, the internal consistency of each scale exceeded .7 and was regarded as satisfactory (Rigby & Slee, 1992). However, due to the limited number of items in each scale, the restricted content of each scale, and the lack of relevance of the prosocial factor to the current study, it was decided to modify this measure to be used as a screening questionnaire for the present study.

The modified questionnaire comprised 23 items (see Appendix A). The tendency to bully scale comprised 8 items including for example, "I pick on wimps to make my friends laugh", and "I like hassling kids who are nerds". The tendency to be victimised scale contained 7 items including for example, "I get picked on" and "Other kids

threaten to hurt me". The remaining 9 items were filler items, such as "I like school" and "I enjoy helping others". Subjects were asked to rate how true each statement was for them on a 4 point scale (never, once in a while, pretty often and very often). The lowest score was never and scored 0, and the highest score was very often, scoring 3.

A brief form was developed for teachers to identify those children in their class with a tendency to bully others, and those with a tendency to be victimised (see Appendix B). The following definitions were provided: "Bullying is defined as the wilful, conscious desire to hurt another and put him/her under stress. Bullying often occurs repeatedly and over time, and often it is unprovoked. Children with a tendency to be victims, are those who are repeatedly bullied by others. They are often of weaker strength ("strength" can be physical, psychological, or emotional)". Using this definition, teachers were asked to list those children in their class who met the criteria for bully or victim. Those children who were identified as satisfying both criteria were excluded from the sample.

A parental/guardian consent form was also developed outlining the purpose of the study, the research method, addressing issues of confidentiality of information, and requesting parental/guardian consent (see Appendix C). A brief description of the purpose of the research, the research method, and the importance of students' contributions was also prepared for teachers to read to students at the time of issuing the parent/guardian consent form (see Appendix D).

2.1.3 Procedure

Subjects were issued with the parental/guardian consent form by their class teacher and were read the information provided to the teachers regarding their participation in the study. Students were encouraged by school staff to return the parent/guardian consent forms as soon as possible. At this time, teachers also completed the teacher identification form.

Approximately one week later, the experimenter returned to the school and those students who had been granted parental or guardian consent to participate in the study

were invited to complete the survey. Those subjects who agreed to participate were provided with the questionnaire by the experimenter and were issued a series of instructions.

Participants were told that the questionnaire was a survey about students' experiences at school. They were told it was the first part of a two-part study and that some of them would be invited to participate in part two. Part two was described as an interview about what students' might do in different situations that may happen at school. Participants were advised that the questionnaire was not a test, and as such, there were no right or wrong answers. They were also instructed that for the survey to be useful it was important that they respond as truthfully as possible and that they answer all the questions. It was emphasised that respondents' answers would be treated as completely confidential, and that neither their teachers nor parents would have access to their responses. Further, respondents were informed that the final report would be a summary of the findings and, as such, would not identify any individual student. Finally, participants were advised that the results of the survey would be available to them through their principal, and they were thanked for their time.

Prior to commencing the questionnaire, the instructions appearing at the beginning of the survey regarding how to complete the questionnaire were read to the respondents. Participants were then given as much time as they needed to complete the questionnaire. The experimenter was available to the participants during completion of the survey to answer any questions. The experimenter then collected the completed questionnaires and the respondents were thanked again for their participation. The teacher identification forms were also collected at this time and the teachers were thanked for their cooperation.

2.2 Main Study

The aim of this study was to assess the social information processing patterns of children identified as tending to bully, those identified as tending to be victimised,

and "normal" children, in ambiguous peer provocation situations where the peer is identified either as a bully or a victim. The dependent variables, all of which were social information-processing measures, were response access or construction, and response decision which comprised response evaluation, outcome expectation, response efficacy, and response selection.

2.2.1 Design

The experiment was a 3 (bully/victim/"normal" subject group) x 2 (bully/victim target peer identity) factorial design.

2.2.2 Subjects

Subjects were 15 boys identified as bullies, 16 boys identified as victims of bullying, and 17 boys identified as neither bullies nor victims of bullying. All subjects were in 5th or 6th grade.

Subjects were identified as tending to bully others if they scored 10 or more on the bully scale and 8 or less on the victim scale and were also identified by their teachers as tending to bully others only. Subjects were identified as victims if they scored 9 or more on the tendency to be victimised scale and 8 or less on the bully scale and were identified by their teachers as tending to be victimised only. A cut off of 10 and 9 for the bully and victim scale respectively, represented the top 15% of subjects. The control group comprised subjects who scored below the cut-off on both the victim and bully scales, and who were not identified by their teachers as tending to be bullied or tending to be victimised by their peers.

2.2.3 Materials

A structured interview schedule was developed to explore the research questions (see Appendix E). Four scenarios of peer provocation where the intent of the peer was ambiguous were developed. The first two scenarios were identical in all respects except for the provocateur's identity which was described in the third sentence.

Similarly, the third and fourth scenarios were also identical with the exception of the provocateur's identity described in the second sentence. To prevent order effects, the second and fourth scenario's were presented first to half of subjects.

The scenarios chosen were actual experiences described to the experimenter by a 10-year-old boy. The first was as follows: "After lunch you're walking down the corridor to your classroom. It's crowded, and a boy going in the opposite direction crashes into you. It's a boy who is well known for bullying other kids. He's in the same grade as you, but he's in a different class. Other kids turn around to see what has happened". In the second scenario the third sentence reads "It's a boy who always gets teased and picked on at school".

The third scenario was as follows: "At recess you're walking across the school yard by yourself. You see a boy that always gets teased and picked on playing with a basketball. He's in the same grade as you, but he's in a different class. In the middle of the schoolyard you get hit in the head by the basketball. Other kids stop to see what has happened". In the fourth scenario the second sentence reads "You see a boy who is well known for bullying other kids playing with a basketball".

A series of open ended and closed questions were then developed to measure response access or construction, and response decision. Response decision included measures of response evaluation, outcome expectation, response efficacy, and response selection. One set of questions was developed for each scene (corridor and basketball).

Open ended questions were asked first so as not to cue the subjects. Subjects were asked what they would most likely do or say in the situation and what they would next most likely do or say to assess the quality and the order of their response selections. To assess response access, subjects were asked to identify all the things they could do or say in response to the situation. To ensure that all responses were accessed, there were two additional probing questions ("What else could you do or say?" and "Is there anything else you could do or say?).

To assess response evaluation, outcome expectation, response efficacy, and response selection, an aggressive, passive, and assertive hypothetical response strategy was developed for the basketball and corridor scenes. For example, for the basketball scenario, a passive response was " Run away as fast as you could", an aggressive response was "Throw the ball at the boy's head", and an assertive response was "Ask the boy to please watch where he throws next time". (These responses were rated as passive, aggressive, and assertive by three independent raters). To measure response evaluation, subjects were asked to rate the "rightness" of each response on a 5 point likert scale. To assess outcome expectation subjects were presented with the hypothetical response strategies and asked to identify all the things that might happen if they responded in this way. Subjects were given two probes including "What else might happen" and "Is there anything else that might happen". For each outcome expectation, subjects were then asked "How good or bad would that be", to examine their evaluations of their perceived consequences. To assess response efficacy participants were asked to rate how difficult it would be for them to perform each hypothetical response on a 5 point likert scale. Participants were then asked to rate how likely it was that they would respond in this way on the same 5 point likert scale. This provided an additional measure of response selection.

How responses were coded is described in Appendix F.

2.2.4 Procedure

Subjects were interviewed individually at their school during class time in a small office. The same experimenter interviewed all subjects and interviews took approximately 25 minutes each. The interview was described as a study of what students think and do in different situations that might happen at school.

Subjects were instructed that they would be read four stories that describe situations that might happen at school, and that after each story they would be asked a series of questions. They were instructed to listen carefully, and were told that they could ask to have the story or questions repeated to them. Participants were told that

the interview was not a test and as such there were no right or wrong answers. They were told that their responses would be confidential and that the final report would not individually identify any student.

During the interview, subjects were shown the scenarios written in dot point and were shown the Likert scales when they were asked to make the relevant ratings. At the end of the interview subjects were thanked for their participation and invited to ask questions. Finally they were told that they could seek feedback on the results of the study through their principal.

CHAPTER THREE

Results

3.1 Pretest

The pretest was designed to identify children with a tendency to bully others, those with a tendency to be victimised, and children who neither bully others nor are victimised by their peers. These children were identified using a self report measure and teacher nominations.

3.1.1 Sample

Subjects were 147 Year 5 and Year 6 boys from ten Government Primary Schools located in the four regions (Belconnen, City, Woden and Tuggeranong) of the Australian Capital Territory.

The parental/guardian consent form return rate varied across schools surveyed from 42% to 88 %. The mean return rate was 61%. Of those forms that were returned, 93% of children were granted parental or guardian permission to participate in the study.

3.1.2 Self Report Measure

To determine the dimensionality of the self report measure, scores obtained for the 23 item screening questionnaire were subjected to principal axis factor analysis followed by a varimax rotation. (The assumptions underlying the application of principal axis factoring were tested and met prior to conducting the analysis).

The first two factors accounted for 41.4% of the variance. The first factor comprised ten items with factor loadings ranging from -.35 to .83, and reflected a tendency to bully others. The second factor comprised nine items with factor loadings ranging from .31 to .89 and reflected a tendency to be victimised. According to Tabachnick and Fidell (1989) items with factor loadings above .50 are considered

good to excellent. As such, items with factor loadings less than .50 were dropped from the scales, leaving 8 items in the bully scale and 6 items in the victim scale. These items are summarised in Table 1.

Table 1.

Factor Loadings on Selected Screening Questionnaire Items

Item	Bully Factor	Victim Factor
I pick on wimps to make my friends laugh	.83	-.09
I like hassling kids who are nerds	.77	.12
I like to make other kids scared of me	.76	.02
I like to get into a fight with someone I can easily beat	.76	.04
I like it when other kids are afraid of me	.73	.03
I enjoy upsetting wimps	.73	.01
I fight if anyone picks on me	.69	.04
I play up in class	.62	.07
I get called names by other kids	-.01	.89
Other kids make fun of me	.10	.82
I get picked on by other kids	.05	.79
Other kids talk about me behind my back	-.04	.73
I get hit and pushed around by other kids for no reason	.14	.60
Other kids threaten to hurt me	.06	.54

The eight items that comprise the tendency to bully scale include seven items from the intended scale, of which three were drawn from the Rigby and Slee (1992) bully scale from the measure of interpersonal relating. The Rigby and Slee (1992) items are "I like to make other kids scared of me", "I enjoy upsetting wimps", and "I like to get

into a fight with someone I can easily beat". The remaining item, "I play up in class", was in fact included in the screening questionnaire as a filler item and was also drawn from the Rigby and Slee (1992) filler items.

The items comprising the victim scale include six of the intended eight items of the modified measure. Of these six items, four are Rigby and Slee's (1992) original victim scale items. The additional items are "other kids talk about me behind my back", and "other kids threaten to hurt me".

To examine the reliability of the two scales alpha coefficients were computed. The internal consistency reliability coefficients (Cronbach's alpha) for the bully and victim scales were .90 and .91 respectively. The factor correlation matrix showed a very low correlation between the factors ($\underline{r}$ = .07).

A bully and victim score was obtained for each subject by summing the relevant scale items. A subject was considered to tend to bully if he scored 10 or more on the bully scale and 8 or less on the victim scale. Similarly, a subject was considered to have the tendency to be victimised if he scored 9 or more on the victim scale and 8 or less on the bully scale. The cut off of 10 and 9 represented the top 15% of subjects.

Using these criteria, 14% of subjects identified themselves as tending to bully others and 15% of subjects identified as tending to be victimised by their peers. Further, 2% of subjects reported that they tended to bully others and to be victimised, and 69% reported that they were neither victimised by their peers nor did they bully others.

As noted, to be included in the study, subjects had to self select as a bully or a victim only, and be nominated by their teacher as meeting the same criteria.

3.1.3 Teacher Report

Twenty-one teachers from nine of the ten schools surveyed were asked to nominate all Year 5 or Year 6 boys with a tendency to bully others, or with a tendency to be victimised by their peers. One school was not willing to nominate children due to concerns of the impact on school-family relations and issues of student confidentiality.

However, this school agreed to comment on those children who self selected as "bully" or "victim".

The percentage of children nominated by teachers as tending to bully others varied across schools from 7% to 25%, with a mean of 14 %. Similarly, children nominated as tending to be victimised varied across schools from 11% to 24% and the mean was 18%.

Of the subjects who self selected as tending to bully, 15 were also nominated by teachers as meeting the criteria. Sixteen of the subjects who identified themselves as being victimised were nominated by teachers as meeting the criteria. The 17 control group subjects selected were a sample of those children who identified themselves as neither bullying others nor being bullied, and who were not identified by teacher nomination as a bully and/or a victim.

Thus, the final sample comprised 15 bully group members, 16 victim group members, and 17 control group members.

3.2 Main Study

Due to small sample sizes, the scales of measurement (nominal and ordinal scales), and violations of the distribution assumptions of parametric statistical methods, nonparametric or distribution-free methods were used to test the predictions. The sampling procedure and experimental design ensured that the necessary assumptions for nonparametric techniques were met.

To test the hypotheses regarding the differential impact of group membership and target peer identity on response access, response evaluation, outcome expectations, response efficacy, and response selection, these variables were compared across groups and target identities. A series of Mann-Whitney U Tests (Wilcoxon Rank Sum W Tests) were carried out to examine group differences, Fishers Exact Test and Chi Square was used to analyse 2x2 contingency tables, and the Wilcoxon Matched-Pairs

Signed-Rank Test was used to compare group members' responses to the target identities.

Finally, as they were predicted comparisons, all analyses were conducted using an error rate of $p<.05$. While the error rate is protected in theory by conducting planned comparisons, due to the number of comparisons computed, the actual statistical inflation of the Type 1 error rate must be acknowledged. A series of exploratory post hoc comparisons were also computed to assist in the description of the patterns found. No adjustment was made to the error rate for these analyses as the comparisons were regarded as purely exploratory, and they were not practical due to the small sample size anyway.

3.2.1 Response Access

In response to each scenario, subjects were asked what they would most likely and next most likely do, and what else they could do. Following are the findings of the size of the response repertoire, that is, the total number of responses generated by subjects, and the quality of subject's first and second response choices.

3.2.1.1 Size of response repertoire

Following is a description of the total number of subjects' responses to each of the corridor and basketball scenes. Results of the planned analyses are then presented followed by the results of the post hoc analyses. The findings are then summarised.

Table 2 shows the mean number of responses generated by the bully, victim and control groups for the corridor and basketball scene. Although the differences are small, for the bully target in the corridor scene, and the victim target in the basketball scene, the mean number of responses generated by bully subjects is less than the mean number generated by victim subjects, which is less than control subjects. For the bully identity in the basketball scene, the mean number of bully group members' responses is less than the control group, which is less than the victim group. For the victim identity

in the corridor scene, the mean number of responses generated by the victim group is less than the control group, which is less than the bully group.

Table 2.

Mean Number of Total Responses to Corridor and Basketball Scenarios by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	2.87_{a1}	2.93_{a1}	3.00_{a1}	2.56_{a1}	3.12_{a1}	2.89_{a1}
Basketball	2.80_{a1}	2.47_{a1}	3.25_{a1}	2.63_{a2}	3.06_{a1}	2.82_{a1}

Note: Different alphabetic subscripts indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

Planned analyses

A series of Mann-Whitney U Tests were computed to examine differences between the control and bully group's, and control and victim group's total number of responses to the corridor and basketball scene (see Prediction 1).

For the corridor scene, results showed no significant differences between control and bully group members in their total number of responses to the bully target (z = -.535, p = .593) or the victim target (z = -.201, p = .841). There were also no significant differences between control and victim group member's total number of responses for either the bully target (z = -.497, p = .619), or the victim target (z = -1.24, p = .215).

For the basketball scene, no significant differences were found between the control and bully groups when the target was identified as either a bully (z = -1.100, p = .274)

or a victim (z = -1.045, p = .296). There were also no significant differences in control and victim groups' total number of responses to either the bully target (z = -.132, p = .895) or the victim target (z = -.435, p = .664).

Post hoc analyses

To explore the effect of target peer identity on the size of the response repertoire, a series of Wilcoxon Matched-Pairs Signed-Ranks Tests were computed. For bully subjects, there were no significant differences in their total number of responses to the two target identities in the corridor scene (z = -.133, p = .894), or the basketball scene (z = -1.334, p = .182). Similarly, no significant differences were found between the control group's total number of responses to the bully and victim targets in the corridor scene (z = -.770, p = .441), or the basketball scene (z = -.863, p = .388). For the victim group, there were also no significant differences in their total number of responses to the two target identities in the corridor scene (z = -1.521, p = .128). However, victim group members generated significantly more responses to the bully target than the victim target in the basketball scenario (z = -2.090, p = .037).

Summary

The above findings fail to support Prediction 1 that bully and victim subjects would generate fewer responses to peer provocation than control subjects. While the mean number of responses produced by bully and victim subjects for two scenarios were in fact less than the mean number generated by the control group, these differences were non-significant. Further, in the remaining scenarios, the bully or victim group produced the least mean number of responses, however these differences were also not statistically significant.

Post hoc analyses to explore the effect of target identity on the size of each group's response repertoire, showed that victim subjects generated more responses when the provocateur was identified as a bully as opposed to a victim. This finding was only significant for the basketball scene, however the same direction of findings was observed in the corridor scene. While control subjects generated more responses when the target was identified as a bully as opposed to a victim, these differences were

not significant. Lastly, target identity appeared to have no consistent effect on the number of responses generated by bully subjects.

3.2.1.2 Quality of first response

The quality of subject's first response choice to the corridor and basketball scenes was coded as aggressive or non-aggressive and is described below. The results of the planned analyses are presented and then summarised.

The quality of subject's first response choice to the corridor and basketball scene by group membership, is presented in Table 3. For the corridor scene, when the target was identified as a bully, 33.3% of bully subjects provided an aggressive first response, compared to 5.9% of control subjects and no victim subjects. When the target was identified as a victim, 60 % of bully subjects provided an aggressive first response, compared to 5.9 % of control subjects and no victim group subjects.

A similar pattern of findings can be seen in the basketball scenarios. When the target was identified as a bully, 60% of bully subjects offered an aggressive first response, compared to 6.2% of victim subjects and 5.9% of control subjects. Of the bully group, 80% nominated an aggressive first response, compared to 25% of victim group members and 11.8% of control group members, when the target was a victim.

Planned analyses

As the size of expected frequencies was too small for the Chi-Square Test to be valid, Fisher's Exact Tests (Daniel, 1990) were used to determine if bully group members nominated more aggressive first responses, on average, for managing peer provocation, than victim and control group members (see Prediction 2a).

For the corridor scenario, when the target peer was identified as a bully, results showed that bully group members were more likely to provide an aggressive first response, on average, than victim ($\underline{b}$ (31) = 10, $\underline{p}$ = .025) but not control group members ($\underline{b}$ (32) = 10, $\underline{p}$ > .05). The average proportion of bully group members to give an aggressive first response when the target peer was identified as a victim in the

same scene, was higher than for the victim (b (31) = 6, p = .005) and control groups (b (32) = 6, p = .005).

Table 3.

Quality of First Response Choice by Group Membership (%)

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Non aggressive	66.7	40	100	100	94.1	94.1
Aggressive	33.3_{a1}	60_{a1}	0_{b}	0_{b}	5.9_{a}	5.9_{b}
Basketball Scene:	B	V	B	V	B	V
Non aggressive	40	20	93.8	75	94.1	88.2
Aggressive	60_{a1}	80_{a1}	6.2_{b}	25_{b}	5.9_{b}	11.8_{b}
N	15	15	16	16	17	17

Note: B = Bully target and V = Victim target in respective scenes.

Different alphabetic subscripts from bully group indicate group difference $p < .025$.

Different numeric subscripts indicate within group difference $p < .05$.

For the basketball scene, when the target peer was identified as a bully, the average proportion of bully group members to give an aggressive first response was significantly higher than for victim (b (31) = 6, p = .005) and control groups (b (32) = 6, p = .005). When the target was a victim, this same difference was found between

the bully and victim groups (b (31) = 3, p = .005) and the bully and control groups (b (32) = 3, p = .005).

Finally, to determine whether bully subjects responded differently to the bully and victim target in the two scenes, two Wilcoxon Matched-Pairs Signed-Rank Tests were conducted (see Prediction 2b). Results showed no significant differences in bully group members' first response choice to the two target identities in either the corridor scene (z = -1.468, p = .142), or the basketball scene (z = -1.214, p = .225).

Summary

Consistent with Prediction 2a, compared with victim and control group members, bully group members generated significantly more aggressive first response choices to peer provocation. (It is noted that one bully/control group difference was not significant, however the pattern of findings was in the direction predicted.)

More bully subjects nominated an aggressive first response choice for the victim target compared with the bully target, however these differences were not significant (see Prediction 2b).

3.2.1.3 Quality of second response

The results of subject's second response choice are described, followed by the findings of the planned analyses. A summary of the results is then presented. Table 4 shows the quality of group members' second response choice to the corridor and basketball scene. It must be noted that several subjects failed to provide a second response choice. Table 4 therefore shows the new N for each group and condition.

From Table 4 it can be seen that more bully subjects than victim and control subjects provided an aggressive second response. Further, for both scenes, when the target was a victim, almost twice as many bully subjects provided an aggressive second response than when the target was identified as a bully.

Table 4.

Quality of Second Response Choice by Group Membership (%)

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Non aggressive	61.5	33.3	100	93.8	81.3	88.2
Aggressive	38.5_{a1}	66.7_{a1}	0_{b}	6.2_{b}	18.8_{a}	11.8_{b}
N	13	15	16	16	16	17
Basketball Scene:	B	V	B	V	B	V
Non aggressive	57.1	20	93.3	85.7	71.4	68.8
Aggressive	42.9_{a1}	80_{a2}	6.7_{b}	14.3_{b}	28.6_{a}	31.3_{b}
N	14	15	15	14	14	16

Note: B = Bully target and V = Victim target in respective scenes.

Different alphabetic subscripts from bully group indicate group difference $p < .025$.

Different numeric subscripts indicate within group difference $p < .05$.

Planned analyses

It was expected that bully subjects would provide more aggressive second response choices than victim and control subjects (Prediction 3). As the size of expected frequencies was too small for the Chi-Square Test to be valid, the Fisher's

Exact Test (Daniel, 1990) was used to test for these differences and the results are reported below.

For the corridor scene, when the target was a bully, results showed that bully subjects were more likely to generate an aggressive second response choice, on average, than victim subjects (b (29) = 8, p = .025), but not control subjects (b (29) = 8, p >.05). When the target was a victim, bully subjects generated more aggressive responses, on average, than victim subjects (b (31) = 5, p = .005) and control subjects (b (32) = 5, p = .005).

For the basketball scene with a bully target, bully subjects generated more aggressive responses on average than victim subjects (b (29) = 8, p = .05), but not control subjects (b (28) = 8, p >.05). When the target was a victim in the basketball scene, bully subjects were more likely to generate an aggressive response on average than victim subjects (b (29) = 2, p = .005) and control subjects (b (31) = 3, p = .01).

Prediction 2b was that bully subjects would present more aggressive responses when the provocateur was a victim as opposed to a bully. Two Wilcoxon Matched-Pairs Signed-Rank Tests were conducted to determine whether there were differences in bully subjects' second response choice for the two targets. Results showed a significant difference in response choice for the victim and bully target in the basketball scene (z = -2.201, p = .028). However, there was no significant difference in second response choice in the corridor scene (z = -1.600, p = .110).

Summary

Results provide partial support for Prediction 3. As expected, bully subjects generated significantly more aggressive second response choices than victim subjects. Compared with control subjects, bully subjects only generated significantly more aggressive second response choices when the target was a victim. When the target was a bully, more bully subjects generated aggressive responses than control subjects, although the differences were not significant.

The above findings also provide support for Prediction 2b, that more bully subjects would provide aggressive solutions when the target was identified as a victim

as opposed to a bully. Indeed, more bully subjects provided aggressive second response choices when the target was a victim. This finding was significant in the basketball scene, however the difference was not significant in the corridor scene.

3.2.2 Response evaluation

For each scenario, subjects were provided with three hypothetical responses (aggressive, assertive and passive), and asked to evaluate how right each response strategy was on a five point scale (1 = very wrong and 5 = very right).

Findings for the aggressive response are presented, followed by the results for the assertive response, and then the passive response. For each hypothetical response, the findings are described and the results of the planned analyses are reported. The findings are then summarised.

3.2.2.1 Aggressive response strategy

The means and standard deviations of evaluation scores for the hypothetical aggressive response for each group and for all scenarios, are presented in Table 5. For all scenarios, the bully group's mean evaluation score for the aggressive response was more positive than the control group's mean evaluation, which was more positive than the victim group's mean evaluation score.

It was expected that the bully group would evaluate aggressive responses more positively than other group members (Prediction 4a). A series of Mann Whitney U Tests were conducted to examine these group differences.

Comparisons between the bully and victim groups showed significant differences when the target peer was identified as a bully for both the corridor scene ($\underline{z}$ = -2.421, $\underline{p}$ = .016) and the basketball scene ($\underline{z}$ = -2.276, $\underline{p}$ = .023). Similarly, differences were found when the target was a victim for both the corridor scene ($\underline{z}$ = -2.847, $\underline{p}$ = .004) and the basketball scene ($\underline{z}$ = -3.249, $\underline{p}$ = .001).

Table 5.

Means and Standard Deviations (in parentheses) of Evaluations of Hypothetical Aggressive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	2.47_{a1}	2.33_{a1}	1.69_{b}	1.56_{b}	1.76_{b}	1.71_{b}
	(.99)	(.82)	(.48)	(.51)	(.56)	(.59)
Basketball	2.53_{a1}	2.53_{a1}	1.81_{b}	1.56_{b}	2.00_{a}	1.65_{b}
	(.92)	(.99)	(.83)	(.81)	(.94)	(.61)

Note: The higher the score, the more positively evaluated the response strategy.

Different alphabetic subscripts from bully group indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

Significant differences were found between bully and control groups' evaluations of the aggressive response for the bully target in the corridor scenario ($z = -2.161$, $p = .031$), but not for the same target in the basketball scenario ($z = -1.753$, $p = .080$). Comparisons between the bully and control groups evaluations for the victim targets were significant for the corridor scene ($z = -2.30$, $p = .021$) and the basketball scene ($z = -2.908$, $p = .004$).

Two Wilcoxon Matched-Pairs Signed-Rank Tests were computed to test the prediction that bully subjects would evaluate the aggressive responses more positively for victim targets than bully targets (Prediction 4b). Results showed no significant difference between bully group members response evaluations for the two target identities in either the corridor scene ($z = -.560$, $p = .575$) or the basketball scene ($z = -.135$, $p = .893$).

To summarise, consistent with Prediction 4a, bully subjects evaluated aggressive responses more positively than victim and control subjects. (It is noted that there was one non-significant finding, although this difference was in the direction predicted). Contrary to Prediction 4a, bully subjects were not more likely to evaluate aggressive responses more positively for victim provocateurs compared with bully provocateurs.

3.2.2.2 Assertive response strategy

Table 6 shows the means and standard deviations of the evaluation scores for the assertive response for each scenario, for the bully, victim and control groups. With the exception of the victim target basketball scenario, the bully group's mean evaluation scores for the assertive responses were slightly higher than the control group's scores, which were slightly greater than the victim group's mean evaluation scores.

Table 6.

Means and Standard Deviations (in parentheses) of Evaluations of Hypothetical Assertive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	3.67_{a}	3.60_{a}	3.25_{a}	3.50_{a}	3.35_{a}	3.53_{a}
	(.49)	(.63)	(.93)	(.89)	(.86)	(.87)
Basketball	3.60_{a}	3.67_{a}	3.25_{a}	3.69_{a}	3.35_{a}	3.41_{a}
	(.99)	(.62)	(.93)	(.70)	(.93)	(.80)

Note: The higher the score, the more positively evaluated the response strategy.

Different alphabetic subscripts indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

It was expected that control subjects would evaluate the assertive responses more positively than bully and victim subjects (Prediction 4c). The control and victim

groups, and the control and bully groups were compared via Mann Whitney U Tests. The findings are presented below.

Results were not significant for any of the comparisons between the control and victim groups. In the corridor scene there were no significant differences for either the bully target (z = -.447, p = .655), or the victim target (z = -.101, p = .920). Similarly, there were no significant group differences in the basketball scene for either the bully target (z = -.363, p = .717) or the victim target (z = -.674, p = .501).

Comparisons between control and bully subjects' evaluations of the assertive response across scenarios, were also not significant. In the corridor scene, no differences were found for the bully target (z = -.879, p = .380), or the victim target (z = -.088, p = .930). Finally, no differences were found for the bully target (z = -.795, p = .427) or the victim target (z = -.944, p = .345) in the basketball scene.

In sum, contrary to Prediction 4c, control subjects did not evaluate the assertive responses significantly more positively than victim and bully subjects. While the differences were not significant, control subjects' mean evaluation score was more positive than the victim subjects' score. Interestingly, bully subjects consistently evaluated the assertive responses more positively than control subjects, although the differences were not significant.

3.2.2.3 Passive response strategy

Table 7 shows the means and standard deviations of the evaluation scores for the passive response across scenarios for all subject groups. For most scenarios, the victim group's mean evaluation of the passive response was more positive than the control group's evaluation, which was more positive than the bully group's mean evaluation of the passive response.

According to Prediction 4d, victim subjects would rate passive responses more positively than other group members. A series of comparisons using the Mann-Whitney U Test were conducted to test for these group differences.

No significant differences were found between victim and bully group members' evaluations of the passive response for the bully target in either the corridor scene ($\underline{z}$ = -1.598, $\underline{p}$ = .110), or the basketball scene ($\underline{z}$ = -1.886, $\underline{p}$ = .059). For the victim target there was a significant difference between the bully and victim groups in the basketball scene ($\underline{z}$ = -2.387, $\underline{p}$ = .017), but not in the corridor scene ($\underline{z}$ = -.734, $\underline{p}$ = .463).

Table 7.

Means and Standard Deviations (in parentheses) of Evaluations of Hypothetical Passive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	2.67_{a}	2.53_{a}	3.31_{a1}	2.69_{a1}	3.00_{a}	2.82_{a}
	(.98)	(1.19)	(1.14)	(.87)	(1.32)	(1.07)
Basketball	2.67_{a}	2.53_{b}	3.34_{a1}	3.31_{a1}	2.82_{a}	3.18_{a}
	(.98)	(.92)	(1.09)	(.70)	(1.01)	(.88)

Note: The higher the score, the more positively evaluated the response strategy.

Different alphabetic subscripts from victim group indicate group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

Comparisons of the victim and control groups showed no significant differences for the bully target in either the corridor scene ($\underline{z}$ = -.692, $\underline{p}$ = .489) or the basketball scene ($\underline{z}$ = -1.636, $\underline{p}$ = .102), or for the victim target, in either the corridor scene ($\underline{z}$ = -.191, $\underline{p}$ = .849) or the basketball scene ($\underline{z}$ = -.579, $\underline{p}$ = .563).

To test the prediction that victim group members would evaluate the passive response more positively for the bully target than the victim target (see Prediction 4e), two Wilcoxon Matched-Pairs Signed-Rank Tests were computed. There were no significant differences between victim subjects' evaluations for the bully and victim

targets for either the corridor scene ($\underline{z}$ = -1.784, $\underline{p}$ = .075) or the basketball scene ($\underline{z}$ = -.178, $\underline{p}$ = .859).

In sum, contrary to Prediction 4d, victim subjects did not evaluate the passive responses significantly more positively than control subjects. While the victim group's mean ratings of the passive responses were higher than the control groups, these differences were not significant. Consistent with Prediction 4d, victim subjects evaluated the passive response significantly more positively than bully subjects, but only when the provocateur was a victim, and only in one scene.

Finally, victim subjects evaluated the passive response more positively when the provocateur was a bully as opposed to a victim, although these differences were not significant as expected (Prediction 4e).

3.2.2.4 Summary

Overall, there is generally weak support for the effect of group membership on response evaluation. One exception was for the evaluation of the aggressive response strategy, where significant group differences were found between the bully and non-bully groups. There is also limited support for the effect of target identity on subjects' response evaluations.

3.2.3 Outcome Expectations

Subjects were provided with three hypothetical responses (aggressive, assertive and passive) and asked to describe what might happen if they responded in each way. Following are the results of subjects' total number of outcome expectations for each hypothetical response, their first expected outcome, and subjects' desirability rating of their outcome expectations.

3.2.3.1 Total number of outcome expectations

The total number of consequences subjects generated for each response strategy is described by group membership. The predicted comparisons are then reported, and results of the post hoc analyses are described. The findings are then summarised.

The mean numbers of outcome expectations for each solution and for each scenario, by the bully, victim and control groups, are presented in Table 8. From Table 8 it can be seen that for each group, for both scenes, and for most solutions, the mean number of outcome expectations generated is greater for the bully target than the victim target (except for two sets of responses where the reverse effect was found and three sets of responses which were the same).

Planned analyses

First, a series of Mann Whitney U Tests were computed to test Prediction 5a that bully subjects would generate fewer outcome expectations for the aggressive solutions than victim and control subjects.

There were no significant differences between the bully and victim group's total number of outcome expectations for the aggressive response. Results for each scenario were as follows: corridor bully target $z = -1.031$, $p = .303$; corridor victim target $z = -.279$, $p = .780$; basketball bully target $z = -.283$, $p = .777$; and basketball victim target $z = -.392$, $p = .70$.

There were also no significant differences between the number of outcomes generated by bully and control subject's for an aggressive action for any scenario (corridor bully target $z = -.269$, $p = .788$; corridor victim target $z = -.636$, $p = .525$; basketball bully target $z = -.127$, $p = .899$; and basketball victim target $z = -.383$, $p = .702$).

Table 8.

Mean of Total Number of Outcome Expectations for Solutions by Group Membership

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Aggressive	2.00_{a1}	1.67_{a1}	1.75_{a}	1.75_{a}	1.94_{a}	1.82_{a}
Assertive	1.33_{a}	1.33_{a}	1.31_{a}	1.25_{a}	1.35_{a}	1.35_{a}
Passive	1.67_{a}	1.20_{a}	1.31_{a1}	1.13_{a1}	1.71_{b}	1.24_{a}
Basketball Scene:	B	V	B	V	B	V
Aggressive	1.80_{a1}	1.87_{a1}	1.88_{a}	1.81_{a}	1.82_{a}	1.94_{a}
Assertive	1.53_{a}	1.27_{a}	1.31_{a}	1.25_{a}	1.35_{a}	1.18_{a}
Passive	1.60_{a}	1.27_{a}	1.31_{a1}	1.19_{a1}	1.47_{a}	1.29_{a}

Note: B = Bully target and V = Victim target in respective scenes.

Different alphabetic subscripts from victim group indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

It was also predicted that victim subjects would generate fewer outcome expectations for passive solutions than other subjects (see Prediction 5b). Groups were compared via Mann Whitney U Tests and the results were as follows.

Comparisons of victim and bully subjects' total number of outcome expectations for the passive responses were not significant (corridor bully target $z = -1.81$, $p = .073$; corridor victim target $z = -.558$, $p = .577$; basketball bully target $z = -1.474$, $p = .141$; and basketball victim target $z = -.518$, $p = .604$).

Comparisons of victim and control subjects' total number of outcome expectations for the passive response showed a significant difference for the corridor bully target scenario ($\underline{z}$ = -2.31, $\underline{p}$ = .022). No other significant differences were found and the results for the remaining scenarios were as follows: corridor victim target $\underline{z}$ = -.809, $\underline{p}$ = .419 ; basketball bully target $\underline{z}$ = -1.115, $\underline{p}$ = .265; and basketball victim target $\underline{z}$ = -.703, $\underline{p}$ = .482.

Next, it was expected that bully subjects would generate fewer outcome expectations for aggressive responses when the target was a victim as opposed to a bully (see Prediction 5c). To test this prediction, two Wilcoxon Matched-Pairs Signed-Rank Tests were computed. Results showed no significant difference in the number of outcome expectations generated by bully subjects to the two targets in the corridor scene ($\underline{z}$ = -1.274, $\underline{p}$ = .203) or the basketball scene ($\underline{z}$ = -.280, $\underline{p}$ = .779).

Last, Prediction 5d was that victim subjects would evidence fewer outcome expectations for passive responses when the provocateur was identified as a bully, as opposed to a victim. Wilcoxon Matched-Pairs Signed-Rank Tests showed victim subjects' total number of outcome expectations for the passive solution for the two identities were not significantly different for the corridor scene ($\underline{z}$ = -.944, $\underline{p}$ = .346) or the basketball scene ($\underline{z}$ = -.802, $\underline{p}$ = .423).

Post hoc analyses

To provide a more complete understanding of the pattern of findings, it was decided to also explore possible group differences in the total number of outcome expectations for the assertive solutions. As there were no specific predictions for this dependent variable, several Kruskal-Wallis Tests were computed, and results for each scenario were as follows: corridor bully target, χ^2 (2, $\underline{N}$ = 48, .265, $\underline{p}$ = .876); corridor victim target, χ^2 (2, $\underline{N}$ = 48, .441, $\underline{p}$ = .802); basketball bully target, χ^2 (2, $\underline{N}$ = 48, 1.953, $\underline{p}$ = .377); and basketball victim target, χ^2 (2, $\underline{N}$ = 48, .428, $\underline{p}$ = .807).

Summary

Contrary to Prediction 5a, bully subjects failed to generate fewer outcome expectations for aggressive responses than victim and control subjects. While the mean number of victim subjects' outcome expectations for passive solutions was less than non-victim subjects, only one of these differences was significant and lends limited support to Prediction 5b.

Prediction 5c, that bully subjects would generate significantly fewer consequences for aggressive acts when the target was a victim as opposed to a bully, was not supported by the findings. Prediction 5d was also not supported. While victim subjects generated fewer outcome expectations for passive responses when the target was identified as a bully as opposed to a victim, these differences were not significant.

Lastly, there were no differences between bully, victim and control subjects in the number of consequences they generated for assertive responses.

3.2.3.2 First outcome expectation

As noted, subjects were asked to describe the consequences of three hypothetical response strategies for peer provocation. To explore the types of outcomes that are most important to children, the first outcome expectations nominated by subjects for the aggressive, assertive and passive response strategies are described. (Although subjects generally provided several consequences for each response strategy, only the first expected outcome is described as it was thought to be the most salient to subjects).

Aggressive response strategy

Results of subjects' first outcome expectations for aggressive responses are described. Findings of the planned comparisons of the bully and victim groups' responses are then presented.

Table 9 shows groups' first outcome expectation for the aggressive response strategy for each scenario. It can be seen that more bully subjects than victim and

control subjects expected that a fight would start if they responded aggressively to provocation by a bully. However, more victim and control subjects than bully subjects expected that they would be immediately threatened or harmed by responding aggressively to a bully provocateur. Not surprisingly, these consequences were of less concern to all subjects when the provocateur was identified as a victim. Retaliation was also more often a consequence of aggression against a bully provocateur.

When the target was a victim, more victim subjects than bully and control subjects expected threat or harm to come to others, such as the provocateur and peer onlookers. Responding aggressively to a victim provocateur as opposed to a bully provocateur, more subjects expected that they would get into trouble with an authority, such as a teacher, parent, or the principal. With the victim target, subjects also expected more passive responses by the provocateur such as crying or running away. Finally, none of the subjects, including the bully group, reported that the aggressive responses would resolve the problem of peer provocation.

Table 9.

First Outcome Expectation for Aggressive Response by Group Membership (%)

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Trouble with authority	13.3	60	6.3	43.8	11.8	47.1
Threat/harm to others	13.3	20	12.5	31.3	0	23.5
Threat/harm to self	33.3	0	56.3	6.3	64.7	0
Fight would start	40	0	25	12.5	23.5	0
Perceived negatively	0	6.7	0	0	0	11.8
Nothing	0	6.7	0	0	0	0
Passive response	0	6.7	0	6.1	0	11.8
Retaliation	0	0	0	0	0	0
Problem resolved	0	0	0	0	0	0
Other	0	0	0	0	0	5.9
Basketball Scene:	B	V	B	V	B	V
Trouble with authority	20	53.3	0	56.3	0	47.1
Threat/harm to others	6.7	26.7	12.5	43.8	5.9	29.4
Threat/harm to self	26.7	6.7	62.5	0	64.7	5.9
Fight would start	26.7	0	18.8	0	23.5	0
Perceived negatively	0	0	0	0	0	5.9
Nothing	0	6.7	0	0	0	5.9
Passive response	0	6.7	0	0	0	0
Retaliation	6.7	0	6.3	0	5.9	0
Problem resolved	0	0	0	0	0	0
Other	13.3	0	0	0	0	6.3

Note: B = Bully target and V = Victim target in respective scenes.

Several predictions were made regarding the outcome expectations of bully and victim subjects. First, it was expected that victim subjects would expect more consequences related to threat to themselves and retaliation, than bully subjects (Prediction 6a). To explore this prediction, bully and victim subjects' first outcome expectations were recoded as either threat to self (this included the immediate threat or harm to self and retaliation categories) or no threat to self (this included the remaining categories). A Chi-Square Test indicated a significant difference between bully and victim subjects in the basketball scene with a bully provocateur, χ^2 (1, $\underline{N}$ = 31, 3.89, $\underline{p}$ = .049). As predicted, more victims anticipated that they would be at personal risk if they responded aggressively to peer provocation. However, there was no significant difference between bully and victim subjects in the corridor scene with a bully provocateur, χ^2 (1, $\underline{N}$ = 31, 1.64, $\underline{p}$ = .200).

For the victim scenarios, the size of expected frequencies was too small for the Chi-Square Test to be valid, so that two Fisher's Exact Tests (Daniel, 1990) were computed. No significant differences were found for either the corridor scene ($\underline{b}$ (31) = 0, $\underline{p} > .05$) or the basketball scene ($\underline{b}$ (31) = 14, $\underline{p} > .05$).

The second prediction was that bully subjects would expect more outcomes related to punishment than victim subjects for responding aggressively to peer provocation (Prediction 6b). To explore this prediction, bully and victim subjects first outcome expectations were recoded as either punishment (the trouble with authority category) or no punishment (the remaining categories). Chi Square Tests indicated no significant differences between bully and victim subjects in terms of their outcome expectations for responding aggressively to the victim provocateur in either the corridor scene, χ^2 (1, $\underline{N}$ = 31, .819, $\underline{p}$ = .356), or the basketball scene χ^2 (1, $\underline{N}$ = 31, .027, $\underline{p}$ = .870). Fishers Exact Tests had to be computed for the remaining scenarios and results showed no significant differences between victim and bully subjects for the bully provocateur in the corridor scene ($\underline{b}$ (31) = 5, $\underline{p} > .05$) or the basketball scene ($\underline{b}$ (31) = 5, $\underline{p} > .05$).

In sum, while more victim than bully subjects generally expected to be at risk, and more bully than victim subjects generally expected to get into trouble if they responded aggressively to peer provocation, only one of these differences reached statistical significance.

Assertive response strategy

Table 10 shows subjects' first expected consequences of responding assertively to peer provocation. The clear majority of bully and victim subjects reported that they would be at immediate risk if they responded assertively to the bully provocateur, compared to only half of control subjects. As could be expected, subjects were much less likely to report this consequence when the provocateur was a victim.

When the target was identified as a victim, more victim and control subjects than bully subjects indicated that the problem would be resolved (e.g. "it would then be cool", and " that would be it"). Far fewer subjects thought the problem would be resolved by responding assertively when the provocateur was a bully, and of those who did the majority were control subjects.

Table 10.

First Outcome Expectation for Assertive Response by Group Membership (%)

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Trouble with authority	0	0	0	0	0	5.9
Threat/harm to others	0	6.7	0	18.8	0	17.6
Threat/harm to self	73.3	13.3	81.3	6.3	52.9	0
Fight would start	13.3	0	6.3	0	0	0
Perceived negatively	0	0	0	0	0	17.6
Nothing	0	26.7	12.5	25	5.9	0
Passive response	0	20	0	0	5.9	0
Retaliation	6.7	0	0	0	11.8	0
Problem resolved	6.7	33.3	0	50	23.5	58.8
Other	0	0	0	0	0	0
Basketball Scene:	B	V	B	V	B	V
Trouble with authority	0	0	0	0	0	0
Threat/harm to others	0	6.7	0	25	0	5.9
Threat/harm to self	80	6.7	81.3	6.3	52.9	0
Fight would start	6.7	0	0	0	5.9	0
Perceived negatively	0	13.3	0	0	0	0
Nothing	6.7	26.7	12.5	12.5	29.4	29.4
Passive response	0	0	0	0	0	0
Retaliation	6.7	6.7	6.3	0	0	0
Problem resolved	0	26.7	0	56.3	11.8	64.7
Other	0	6.7	0	0	0	0
No response	0	6.7	0	0	0	0

Note: B = Bully target and V = Victim target in respective scenes.

Passive response strategy

Subjects' first outcome expectation for the passive response are presented in Table 11. It is noted that the majority of each group anticipated that they would be at personal risk (i.e. expected an immediate threat to self and/or later retaliation) if they responded passively to a bully provocateur. This was of far less concern when the target was a victim. In addition, more bully and control subjects than victim subjects reported that they would be perceived negatively if they responded passively to a bully provocateur.

When the peer provocateur was a victim, far more bully subjects than victim and control subjects expected that others would perceive them negatively (e.g. "then they'd think I was the wuss"). More victim and control subjects than bully subjects, however, anticipated that nothing would happen if they responded passively to the victim target.

Finally, only a few subjects indicated that a passive response would resolve the peer provocation problem, and none were bully subjects.

Summary

Bully, victim and control subjects readily produced outcomes for the various response strategies to peer provocation. They also generated different types of outcomes (e.g. threat to self, getting into trouble), and perhaps as would be expected, these appeared to depend upon the response strategy. However, they appeared to be mostly negative outcome expectations except where they identified that the problem would be resolved or that nothing would happen. Further, based on the descriptions, there appear to be some group differences in first outcome expectations for the three response strategies. Some differences were also seen in subjects' expected outcomes for each response strategy dependent upon the identity of the peer provocateur.

Table 11.

First Outcome Expectation for Passive Response by Group Membership (%)

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Trouble with authority	0	0	0	6.3	0	5.9
Threat/harm to others	0	13.3	0	12.5	0	17.6
Threat/harm to self	60	0	50	0	23.5	5.9
Fight would start	0	0	0	0	0	0
Perceived negatively	20	53.3	6.3	12.5	17.6	5.9
Nothing	0	26.7	12.5	62.5	0	41.2
Passive response	0	0	0	0	0	0
Retaliation	20	0	25	0	41.2	0
Problem resolved	0	0	6.3	0	5.9	6.3
Other	0	6.7	0	6.3	11.8	6.3
Basketball Scene:	B	V	B	V	B	V
Trouble with authority	0	0	0	0	5.9	0
Threat/harm to others	0	0	0	0	0	0
Threat/harm to self	60	0	37.5	6.3	52.9	5.9
Fight would start	0	0	0	0	0	0
Perceived negatively	13.3	66.7	0	18.8	17.6	17.6
Nothing	0	13.3	18.8	68.8	5.9	52.9
Passive response	0	0	0	0	0	0
Retaliation	26.7	20	37.5	6.3	17.6	11.8
Problem resolved	0	0	0	0	0	0
Other	0	0	6.3	0	0	11.8

Note: B = Bully target and V = Victim target in respective scenes.

3.2.3.3 Evaluation of outcome expectations

Subjects were asked to rate the desirability of each of their outcome expectations (1= very bad, 5 = very good) for the three hypothetical responses. For each hypothetical response, a mean desirability rating for outcome expectations was then computed. First, the series of planned comparisons for the aggressive and passive response strategy are reported. Next, the findings of the post hoc analyses for the assertive response strategy are presented. Last, the results are summarised.

Table 12 shows the mean desirability ratings of outcome expectations for each hypothetical response to the corridor and basketball scene by group membership. For all scenarios, bully subjects mean desirability rating for their outcome expectations for the aggressive response, was higher than victim and control subjects. Further, bully subjects' mean desirability rating of outcome expectations for the aggressive response was higher when the target peer was identified as a victim compared with a bully.

From Table 12 it is also apparent that for all scenarios, control subjects had the highest mean desirability score for outcome expectations for the assertive response. Victim subjects generally recorded the lowest mean desirability rating for consequences of assertive responses.

Lastly, when the target was identified as a bully, victim subjects' mean desirability rating for outcome expectations for the passive response was higher than other groups.

Table 12.

Mean of Desirability Rating of Self Generated Outcome Expectations for Hypothetical Responses by Group Membership

	BULLY		VICTIM		CONTROL	
Corridor Scene:	B	V	B	V	B	V
Aggressive	2.02_{a1}	2.37_{a1}	1.72_{a1}	1.92_{b1}	1.29_{b}	1.65_{b}
Assertive	$2.33_{a/b1}$	3.17_{a2}	1.79_{a1}	3.09_{a2}	2.59_{b1}	3.24_{a2}
Passive	1.98_{a}	2.03_{a}	2.25_{a1}	2.59_{a1}	2.21_{a}	2.91_{a}
Basketball Scene:	B	V	B	V	B	V
Aggressive	1.94_{a1}	2.49_{a2}	1.53_{a}	1.75_{b}	1.51_{a}	1.69_{b}
Assertive	2.07_{a1}	2.53_{a1}	1.94_{a1}	$3.01_{a/b2}$	2.49_{a1}	3.68_{b2}
Passive	1.60_{a}	1.70_{b}	2.13_{a1}	2.88_{a1}	2.09_{a}	2.94_{a}

Note: B = Bully target and V = Victim target in respective scenes.
The higher the score, the more desirable the outcome expectations.
Different alphabetic subscripts from bully group for aggressive solutions indicate between group difference $p < .05$.
Different alphabetic subscripts for assertive solution indicate between group difference $p<.05$.
Different alphabetic subscripts from victim group for passive solutions indicate between group difference $p< .05$.
Different numeric subscripts indicate within group difference $p < .05$.

Planned analyses

First, it was predicted that bully subjects would evaluate their outcome expectations for aggressive responses more favourably than the victim and control

subjects (Prediction 7a). A series of Mann Whitney U tests were computed to examine these group differences.

Comparisons between the bully and control groups' ratings for the aggressive response showed a significant difference when the target was identified as a bully (z = -2.506, p = .012) and as a victim (z = -2.763, p = .006) in the corridor scene. In the basketball scene comparisons of these groups were significant for the victim target (z = -3.078, p = .002) but not the bully target (z = -1.678, p = .093).

Comparisons of the bully and victim groups showed significant differences in ratings of the aggressive response for both victim targets (corridor: z = -1.972, p = .049; basketball: z = -2.983, p = .003). However, differences were not significant for either of the bully targets (corridor: z = -.827, p = .408; basketball: z = -1.374, p = .170).

It was also predicted that victim subjects would evaluate their outcome expectations for passive responses more favourably than bully and control subjects (Prediction 7b). Again, the Mann Whitney U test was used to evaluate these group differences.

Victim and bully groups' mean desirability ratings of outcome expectations for the passive response were significantly different for the victim target in the basketball scene (z = -3.178, p = .002), but not in the corridor scene (z = -1.640, p = .101). There were no significant group differences for the bully scenarios (corridor: z = -.820, p = .413; basketball: z = -1.568, p = .117).

When the victim and control groups' desirability ratings of outcome expectations for the passive response were compared, no significant differences were found. Results were as follows: corridor, bully target, z = -.038, p = .970; corridor, victim target, z = -.699, p = .485; basketball, bully target, z = -.189, p = .850; and basketball, victim target, z = -.148, p = .882.

Next, Prediction 7c was that bully subjects would evaluate their outcome expectations for aggressive responses more favourably when the provocateur was a victim as opposed to a bully. Wilcoxon Matched-Pairs Signed-Rank Tests showed

that bully group members rated their outcome expectations differently for the target identities in the basketball scene ($\underline{z}$ = -2.039, $\underline{p}$ = .042), but not in the corridor scene ($\underline{z}$ = -1.245, $\underline{p}$ = .213).

Finally, it was expected that victim subjects would evaluate their consequences for passive responses more favourably when the target was a bully as opposed to a victim (Prediction 7d). Using the Wilcoxon Matched-Pairs Signed-Rank Test, there were no significant differences in victim subjects' ratings for the two target identities in either the corridor scene ($\underline{z}$ = -1.185, $\underline{p}$ = .236) or the basketball scene ($\underline{z}$ = -1.852, $\underline{p}$ = .064)

. Post hoc analyses

To explore possible group differences in mean desirability ratings of outcome expectations for the assertive responses, several Kruskal-Wallis Tests were computed. Results of these tests showed a significant between group difference for the corridor scene with a bully target χ^2 (2, $\underline{N}$ = 48, 7.005, $\underline{p}$ = .030), and for the basketball scene with a victim target χ^2 (2, $\underline{N}$ = 48, 9.046, $\underline{p}$ = .011). There were no significant differences for the remaining scenarios (corridor victim scenario, χ^2 (2, $\underline{N}$ = 48, .277, $\underline{p}$ = .871); basketball bully scenario, χ^2 (2, $\underline{N}$ = 48, 3.283, $\underline{p}$ = .194)).

A series of post hoc comparisons using the Mann Whitney U Test were computed to assess the pattern of group differences for the corridor bully target, and basketball victim target scenarios. Comparisons of the bully and victim groups ratings of their outcome expectations for assertive responses were not significant for either the corridor scene with a bully target ($\underline{z}$ = -.994, $\underline{p}$ = .320) or the basketball scene with a victim target ($\underline{z}$ = -1.218, $\underline{p}$ = .223). Comparisons of the bully and control groups showed a significant difference for the basketball scene with a victim target ($\underline{z}$ = -3.124, $\underline{p}$ = .002), but no differences when the target was a bully in the corridor scene ($\underline{z}$ = -1.052, $\underline{p}$ = .293). When the victim and control groups were compared, there was a significant difference in the corridor scene with a bully target ($\underline{z}$ = -2.936, $\underline{p}$ = .003) but no differences when the target was a victim in the basketball scene ($\underline{z}$ = -1.545, $\underline{p}$ = .122).

Lastly, to explore the effect of target identity on how subjects rated their outcome expectations for assertive responses, a series of Wilcoxon Matched-Pairs Signed-Rank Tests were computed. With the exception of bully subjects responses to the basketball scene, each group rated the consequences of responding assertively significantly differently when the target was a victim from when he was a bully. Results were as follows: for the bully group, $\underline{z} = -1.992$, $\underline{p} = .046$ for the corridor scene, and $\underline{z} = -1.289$, $\underline{p} = .197$ for the basketball scene; for the victim group, $\underline{z} = -3.059$, $\underline{p} = .002$ for the corridor scene, and $\underline{z} = -2.795$, $\underline{p} = .005$ for the basketball scene; and for the control group, $\underline{z} = -2.202$, $\underline{p} = .028$ for the corridor scene, and $\underline{z} = -2.942$, $\underline{p} = .003$ for the basketball scene.

Summary

Prediction 7a was partially supported by the results. Indeed, bully subjects rated the consequences of aggressive responses to peer provocation significantly more favourably than victim and control subjects, however this was only true when the provocateur was a victim. While bully subjects did rate the consequences for the bully provocateurs more favourably than victim and control subjects, only one difference was significant. Finally, consistent with Prediction 7c, bully subjects rated their outcome expectations for aggressive responses to peer provocation more favourably when the provocateur was a victim as opposed to a bully. While this difference was only significant in one scene, the same pattern was found in the second scene.

Prediction 7b was also only partially supported by the results. Victim subjects rated the consequences of responding passively to peer provocation significantly more favourably than bully subjects only, and only when the provocateur was a victim. While the victim group's mean rating was higher than the bully and control groups' mean rating when the provocateur was a bully, these differences were not significant. Although the findings were not significant, when the provocateur was a victim, the control group's mean desirability rating was in fact higher than that of the victim group.

Contrary to Prediction 7d, victim subjects did not rate consequences of responding passively more favourably when the target was a bully compared with a victim. In fact, victim subject's mean desirability ratings were higher when the provocateur was a victim as opposed to a bully, although these differences were not statistically significant.

Lastly, while control subjects rated the consequences of responding assertively to peer provocation more favourably than bully subjects, whose evaluations were more favourable than those of the victim subjects, few of these differences reached significance. Interestingly, each group rated the consequences of responding assertively, significantly more favourably when the provocateur was a victim as opposed to a bully. (It is noted that bully subjects' responses to the basketball scene failed to reach an acceptable level of significance, although the differences were in the direction predicted.)

3.2.4 Response Efficacy

For each scenario, subjects were asked to rate three hypothetical responses (aggressive, assertive and passive) on a 5 point scale (1 = very hard, 5 = very easy) describing how difficult it would be for them to perform the response.

Results of subjects' self-efficacy ratings for the aggressive response strategies are presented first, followed by results for the assertive response strategies and then the findings for the passive responses. For each set of hypothetical responses, the results of the planned analyses are described and any additional analysis is then reported. The findings are then summarised.

3.2.4.1 Aggressive response strategy

Table 13 shows the means and standard deviations of the efficacy ratings for the aggressive response strategy for the bully, victim and control groups, for each scenario. In all scenarios, the bully group's mean efficacy score for performing the aggressive response was greater than the victim and control groups' mean scores.

Interestingly, for three out of four scenarios, the victim group's mean efficacy rating was slightly greater than the control group's mean ratings.

Table 13.

Means and Standard Deviations (in parentheses) of Efficacy Ratings for Hypothetical Aggressive Response by Group Membership

	Bully		Victim		Control	
Target Peer:	B	V	B	V	B	V
Corridor	3.47_{a1}	4.40_{a2}	2.44_{b}	2.75_{b}	2.41_{b}	2.47_{b}
	(.99)	(.99)	(.96)	(1.39)	(1.06)	(1.23)
Basketball	3.27_{a1}	4.13_{a2}	2.00_{b}	2.38_{b}	2.18_{b}	2.35_{b}
	(1.10)	(.83)	(.97)	(1.26)	(1.29)	(1.11)

Note: The higher the score, the more confident to perform the response strategy.

Different alphabetic subscripts from bully group indicates between group difference $p < .05$.

Different numeric subscripts indicates within group difference $p < .05$.

Planned analyses

To test prediction 8a, that bully group members would feel more confident to perform aggressive responses than victim and control group members, a series of Mann-Whitney U Tests were computed and are reported below.

Comparisons between bully and victim groups' efficacy ratings for the corridor scene showed significant differences for the victim target ($z = -3.358$, $p = .001$) and the bully target ($z = -2.629$, $p = .009$). Significant differences were also found for the basketball scene victim target ($z = -3.553$, $p = .0004$) and bully target ($z = -2.922$, $p = .004$).

The bully and control groups were also compared and results showed a significant difference in efficacy ratings of the aggressive response for both the victim (z = -3.758, p = .0002) and bully target (z = -2.715, p = .007) in the corridor scenario. For the basketball scenario, significant differences were also found between the bully and control groups' efficacy ratings for both the victim (z = -3.890, p = .0001) and bully targets (z = -2.391, p = .017).

Two Wilcoxon Matched-Pairs Signed-Rank Tests were computed to assess differences in bully group members' responses to the target identities (see Prediction 8b). Results showed a significant difference between bully group members' efficacy ratings for the bully and victim targets in the corridor scene (z = -2.395, p = .017) and the basketball scene (z = -2.240, p = .025).

Summary

Consistent with Prediction 8a, compared to victim and control group members, bully group members were significantly more confident in their ability to respond aggressively to peer provocation. Further, bully group members were significantly more confident in their ability when the provocateur was a victim as opposed to a bully. This finding lends support to Prediction 8b.

3.2.4.2 Assertive response strategy

The means and standard deviations of efficacy ratings for the assertive response strategy for each scenario are presented in Table 14. For both bully target scenarios, the control group's mean efficacy rating was greater than the bully group's mean score, which was greater than the victim group's mean efficacy rating for performing an assertive response. For both victim target scenarios, however, the bully group had the greatest mean efficacy rating, followed by the control group, and the victim group.

Planned analyses

A series of planned comparisons using the Mann-Whitney U Test were carried out to test the prediction that bully group members would feel more confident to perform

the assertive response than control group members who would feel more confident than victim group members (see Prediction 8c).

Table 14.

Means and Standard Deviations (in parentheses) of Efficacy Ratings for Hypothetical Assertive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	3.47_{a1}	4.73_{a2}	3.25_{a}	3.63_{b}	3.71_{a}	3.65_{b}
	(.92)	(.46)	(.86)	(1.09)	(1.16)	(1.17)
Basketball	3.00_{a1}	3.93_{a2}	2.25_{b}	3.75_{a}	3.59_{a}	3.88_{a}
	(.76)	(.80)	(1.18)	(1.06)	(.94)	(.70)

Note: The higher the score, the more confident to perform the response strategy.
Different alphabetic subscripts indicates between group difference $p < .05$.
Different numeric subscripts indicates within group difference $p < .05$.

Comparisons of the bully and control group's efficacy ratings for the assertive response in the corridor scene showed a significant difference for the victim target ($z = -2.866$, $p = .004$) but not for the bully target ($z = -.962$, $p = .336$). There were no significant differences between the bully and control groups' responses for either the bully target ($z = -1.775$, $p = .076$) or the victim target ($z = -.021$, $p = .983$) in the basketball scene.

When the victim and control groups' efficacy ratings were compared, results showed no significant differences for either the bully target ($z = -1.584$, $p = .113$) or the victim target ($z = -.113$, $p = .910$) for the corridor scene. Comparisons for the basketball scenarios showed a significant difference between the victim and control

groups for the bully target ($\underline{z}$ = -3.167, $\underline{p}$ = .002) but not the victim target ($\underline{z}$ = -.141, $\underline{p}$ = .888).

Comparisons of the victim and bully group's responses to the corridor scene showed no significant difference when the target was a bully ($\underline{z}$ = -1.114, $\underline{p}$ = .266), however, there was a significant difference when the target was a victim ($\underline{z}$ = -3.240, $\underline{p}$ = .001). The reverse effect was found for the basketball scene. There was a significant difference between the victim and bully groups' efficacy ratings when the target was a bully ($\underline{z}$ = -2.292, $\underline{p}$ = .022), but no significant difference when the target was a victim ($\underline{z}$ = -.292, $\underline{p}$ = .770).

Post hoc analyses

To provide a more complete understanding of the effect of target identity on bully group members' efficacy ratings for the assertive response, two post hoc comparisons were conducted. Results of the Wilcoxon Matched-Pairs Signed-Rank Test showed a significant difference in bully subjects' efficacy ratings for the bully and victim targets in both the corridor scene ($\underline{z}$ = -3.06, $\underline{p}$ = .002) and the basketball scene ($\underline{z}$ = -2.58, $\underline{p}$ = .010).

Summary

The above findings offer limited support to Prediction 8c. Bully subjects were significantly more confident than control subjects to perform the assertive responses. This finding was only true, however, when the provocateur was identified as a victim, and differences for only one victim scenario reached significance, although results of the remaining victim scenario were in the direction predicted. Lastly, while the control group's mean efficacy ratings for performing the assertive strategies were higher than the victim group's, most of these differences were non-significant.

Finally, post hoc analyses showed that bully subjects were significantly more confident to respond assertively to peer provocation when the target was a victim as opposed to a bully.

3.2.4.3 Passive response strategy

Table 15 shows means and standard deviations of subjects' response efficacy for the passive response for all scenarios. For both bully scenarios, the victim group's mean efficacy rating for performing the passive response was higher than the control group, which was greater than the bully group's mean efficacy score. For both victim scenarios, the control group's mean efficacy score was greater than the victim group, which continued to be higher than the bully group's mean efficacy rating.

Table 15.

Means and Standard Deviations (in parentheses) of Efficacy Ratings for Hypothetical Passive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	2.20_a	2.67_a	3.56_{b1}	3.38_{a1}	3.24_b	3.53_a
	(.94)	(1.54)	(1.03)	(1.15)	(1.09)	(1.28)
Basketball	2.20_a	2.13_a	3.31_{b1}	$2.94_{a/b1}$	3.24_b	3.24_b
	(1.01)	(.99)	(.95)	(1.18)	(1.20)	(.97)

Note: The higher the score, the more confident to perform the response strategy.

Different alphabetic subscripts indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

Planned analyses

It was predicted that victim group members would feel more confident performing passive responses than control subjects, who would feel more confident than bully subjects (Predictions 8d). Mann Whitney U Tests were used to test this prediction and the findings are reported below.

Comparisons between victim and bully group members showed a significant difference in efficacy ratings of the passive response for the bully target in both the

corridor scenario (z = -3.197, p = .001) and the basketball scenario (z = -2.747, p = .006). When the target was a victim, however, there were no significant differences between the victim and bully groups for the corridor scene (z = -1.380, p = .168) or the basketball scene (z = -1.844, p = .065).

When the victim and control groups' efficacy ratings were compared for the corridor scene, there were no significant differences when the target was a bully (z = -.777, p = .437), or when the target was a victim (z = -.409, p = .683). There were also no significant differences for either the bully target (z = -.039, p = .969), or the victim target (z = -.765, p = .445) for the basketball scenario.

Lastly, comparisons between the bully and control groups' efficacy ratings revealed significant differences for the bully target in both the corridor scenario (z = -2.571, p = .010) and the basketball scenario (z = -2.411, p = .016). A significant difference was also found for the victim target in the basketball scenario (z = -2.731, p = .006), but not the corridor scene (z = -1.681, p = .093).

To test the prediction that victim subjects would feel more confident to respond passively to a bully provocateur as opposed to a victim provocateur (Prediction 8e), two Wilcoxon Matched-Pairs Signed-Rank Tests were conducted. Results showed no significant difference in victim group members' efficacy ratings for the passive response to the bully and victim targets for either the corridor scene (z = -.454, p = .650) or the basketball scene (z = -1.521, p = .128).

Summary

In sum, partial support was found for Prediction 8d. Victim subjects were significantly more confident to perform passive responses than bully subjects, but only when the provocateur was identified as a bully. While the victim group's mean efficacy rating for performing passive responses when the provocateur was a bully was higher than the control group's mean score, these differences were not significant. When the provocateur was a victim, it was the control group who had the highest mean efficacy score for performing passive responses, although these differences were not significant.

In further support of Prediction 8d, bully subjects were significantly less confident than control subjects to respond passively to both a victim and bully peer provocateur. (It is noted that one difference did not reach statistical significance, although it was in the direction predicted.)

Finally, although victim subjects were more confident responding passively to a bully provocateur as opposed to a victim provocateur, these differences were not significant and fail to support Prediction 8e.

3.2.4.4 Summary

Overall, there were some group differences in feelings of efficacy to perform various response strategies to manage peer provocation. There were also some differences in children's feelings of efficacy to perform various responses depending upon the identity of the peer provocateur. Most interesting, however, was the possible interaction between the child's status and the identity of the provocateur on efficacy ratings for some response strategies.

3.2.5 Response Selection

For each scenario, subjects were provided with three hypothetical response strategies (aggressive, assertive and passive) and asked to indicate how likely it was that they would select to perform each response (1 = "not likely" and 5 = "definitely").

Findings for the aggressive response strategy are presented first, followed by results for the assertive response, and then the passive response strategy. For each hypothetical response, the findings are described and the planned comparisons are reported. If post hoc analyses were conducted to further explore the research questions or to investigate additional support for the predictions, these findings are presented next. The results are then summarised.

3.2.5.1 Aggressive response strategy

Table 16 shows the means and standard deviations of the likelihood to perform aggressive responses for each scenario, for each group. For all scenarios, the bully group's mean selection ratings are greater than the victim and control groups' mean ratings. Interestingly, for most scenarios, the victim group's mean ratings are slightly greater than the control group's.

Table 16.

Means and Standard Deviations (in parentheses) of Response Selections for Hypothetical Aggressive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	3.33_{a1}	3.53_{a1}	1.69_{b}	1.75_{b}	1.47_{b}	1.59_{b}
	(1.29)	(1.06)	(.79)	(1.34)	(.51)	(.87)
Basketball	2.93_{a1}	3.47_{a2}	1.37_{b}	1.88_{b}	1.47_{b}	1.65_{b}
	(1.39)	(1.06)	(.81)	(1.15)	(.87)	(.86)

Note: The higher the score, the more likely to select the response strategy.

Different alphabetic subscripts from bully group indicates between group difference $p < .05$.

Different numeric subscripts indicates within group difference $p < .05$.

Planned analyses

To test the prediction that the bully group would be more likely than the victim and control groups to select aggressive responses (Prediction 9a), a series of planned comparisons were conducted via Mann-Whitney U Tests.

Comparisons between the bully and victim group ratings were significant for the bully target in the corridor scene ($z = -3.426$, $p = .001$) and the basketball scene ($z = -3.275$, $p = .001$). Similarly, a comparison between the bully and victim groups'

probability ratings for the victim target were significant for the corridor scenario (z = -3.245, p = .001) and the basketball scenario (z = -3.326, p = .001).

When the bully and control groups' selection ratings were compared there were significant differences for the bully identity in the corridor scene (z = -3.913, p = .0001) and the basketball scene (z = -3.111, p = .002). There were also significant differences for the victim target in both the corridor scenario (z = -3.966, p = .0001) and the basketball scenario (z = -3.870, p = .0001).

It was also predicted that the bully group would be more likely to select aggressive responses for a victim target as opposed to a bully target (Prediction 9b). Two Wilcoxon Matched-Pairs Signed-Rank Tests were computed to test this prediction. Results were not significant for the corridor scenario (z = -.489, p = .625), however there was a significant difference in bully subjects' ratings for the bully and victim target for the basketball scenario (z = -1.986, p = .049).

Summary

Consistent with Prediction 9a, the likelihood of bully subjects responding aggressively to peer provocation was significantly greater than for victim and control subjects. Further, and consistent with Prediction 9a, bully subjects were more likely to select an aggressive response when the provocateur was a victim as opposed to a bully. This difference was only significant for the basketball scene, although the same pattern of findings was observed in the corridor scene. Finally, these findings are consistent with those for subjects' first and second response choice.

3.2.5.2 Assertive response strategy

The means and standard deviations of assertive response selection ratings for each scenario are presented in Table 17. For each scenario, the control group's mean probability scores to perform the assertive response are higher than the bully group's mean scores, which are generally higher than the victim group's mean scores.

Table 17.

Means and Standard Deviations (in parentheses) of Response Selections for Hypothetical Assertive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	2.93_{a1}	3.33_{a1}	2.44_{a1}	3.25_{a1}	3.35_{a1}	3.35_{a1}
	(1.11)	(1.29)	(1.59)	(1.24)	(1.27)	(1.06)
Basketball	2.53_{a1}	2.73_{b1}	2.13_{b1}	3.38_{a2}	3.18_{a1}	3.77_{a2}
	(1.19)	(1.10)	(1.21)	(1.31)	(1.38)	(.97)

Note: The higher the score, the more likely to select the response strategy.

Different alphabetic subscripts from control group indicates group difference $p < .05$.

Different numeric subscripts indicates within group difference $p < .05$.

Planned analyses

It was expected that control subjects would be more likely than bully and victim subjects to select assertive responses (Prediction 9c). Following are the results of a series of Mann Whitney U Tests which were computed to test this prediction.

No significant differences were found when the victim and control group ratings were compared for the bully target in the corridor scenario ($z = -1.668$, $p = .095$). However there was a significant difference for the same target in the basketball scenario ($z = -2.279$, $p = .023$). Comparisons between the victim and control groups were not significant when the target was a victim in either the corridor scene ($z = -.229$, $p = .819$) or the basketball scene ($z = -.815$, $p = .415$).

Comparisons of the bully and control groups showed no significant differences for the bully target in either the corridor scene ($z = -1.134$, $p = .257$) or the basketball scene ($z = -1.419$, $p = .156$). There was a significant difference between groups for

the victim target in the basketball scenario ($\underline{z}$ = -2.630, $\underline{p}$ = .009), but not the corridor scene ($\underline{z}$ = -.122, $\underline{p}$ = .903).

Post hoc analyses

Finally, to explore the effect of target identity on ratings of assertive responses, a series of post hoc tests were computed. Results of the Wilcoxon Matched-Pairs Signed-Rank Tests showed a significant difference in victim subjects' ratings for the two target identities in the basketball scene ($\underline{z}$ = -2.353, $\underline{p}$ = .019) but not the corridor scene ($\underline{z}$ = -1.6818, $\underline{p}$ = .093). There were no significant differences in the bully group's response in either the corridor ($\underline{z}$ = -1.244, $\underline{p}$ = .214) or basketball scene ($\underline{z}$ = .8402, $\underline{p}$ = .401). Finally, there was a significant difference in control subject's selection ratings of assertive responses for the two target identities in the basketball scene ($\underline{z}$ = -2.045, $\underline{p}$ = .041), but not in the corridor scene ($\underline{z}$ = .000, $\underline{p}$ = 1.000).

Summary

While compared to bully and victim subjects, control subjects rated themselves as more likely to respond assertively to peer provocation, many of these differences were not significant, and therefore fail to support Prediction 9c.

Finally, post hoc analyses showed that victim subjects and control subjects were significantly more likely to respond assertively if the provocateur was identified as a victim as opposed to a bully. These differences were each only significant in one scene. While the same pattern of findings was seen for the victim subjects in the remaining scenarios, these differences were not significant. Similarly, while bully subjects' mean ratings to respond assertively was higher for the victim provocateur than the bully provocateur, these differences failed to reach significance.

3.2.5.3 Passive response strategy

Table 18 shows the means and standard deviations of the passive response selection ratings for each subject group for each scenario. For most scenarios, the mean rating of the victim group to select the passive response is greater than that of the control group, which is greater than the mean selection rating of the bully group.

Table 18.

Means and Standard Deviation (in parentheses) of Response Selections for Hypothetical Passive Response by Group Membership

	BULLY		VICTIM		CONTROL	
Target Peer:	B	V	B	V	B	V
Corridor	1.87 $_{a}$	1.73 $_{a}$	3.19 $_{b1}$	2.69 $_{b1}$	3.12 $_{b}$	2.76 $_{b}$
	(1.13)	(1.22)	(1.05)	(1.40)	(1.36)	(1.35)
Basketball	2.20 $_{a}$	1.73 $_{a}$	3.50 $_{b1}$	2.75 $_{b1}$	2.71 $_{a/b}$	2.41 $_{a/b}$
	(1.01)	(.80)	(1.26)	(1.29)	(1.36)	(1.33)

Note: The higher the score, the more likely to select the response strategy.

Different alphabetic subscripts indicate between group difference $p < .05$.

Different numeric subscripts indicate within group difference $p < .05$.

Planned analyses

A series of planned comparisons were computed using the Mann Whitney U Test to test the prediction that victim group members would be more likely than control group members, who would be more likely than bully group members to select the passive response (Prediction 9d).

Comparisons between the victim and bully groups' ratings were significant for the bully target in the corridor scenario ($z = -3.008$, $p = .003$) and the basketball scenario ($z = -2.734$, $p = .006$). Results were also significant for the victim target in the corridor scene ($z = -2.305$, $p = .021$) and the basketball scene ($z = -2.260$, $p = .024$).

When the victim and control group's scores were compared across scenarios, no significant differences were found for either the bully target in the corridor ($z = -.095$, $p = .924$) or basketball ($z = -1.663$, $p = .096$) scene, or the victim target in the corridor ($z = -.168$, $p = .867$) or basketball scenario ($z = -.788$, $p = .431$).

Significant differences were found between the bully and control groups' ratings of performing passive responses for both the bully target ($\underline{z}$ = -2.590, $\underline{p}$ = .01) and the victim target ($\underline{z}$ = -2.438, $\underline{p}$ = .015) in the corridor scene. In the basketball scene, there were no differences between the groups for either the bully target ($\underline{z}$ = -1.156, $\underline{p}$ = .248) or the victim target ($\underline{z}$ = -1.391, $\underline{p}$ = .164).

Finally, it was expected that the victim group would be more likely to perform the passive response with the bully peer than the victim peer (Prediction 9e). Two Wilcoxon Matched-Pairs Signed-Rank Tests were computed and results showed no differences in victim group members ratings for the two target identities for either the corridor scene ($\underline{z}$ = -1.444, $\underline{p}$ = .149) or the basketball scene ($\underline{z}$ = -1.569, $\underline{p}$ = .117).

Summary

Partial support was found for prediction 9d. Compared to victim and control subjects, bully subjects were significantly less likely to respond passively to peer provocation. Contrary to prediction 9d, however, victim and control subjects were not significantly different in their response selection, although the victim group's mean selection ratings were generally higher than the control groups.

Lastly, while victim subjects were more likely to select passive responses if the provocateur was a bully as opposed to a victim, these findings were not significant and provide no support to Prediction 9e.

3.2.5.4 Summary

There were some significant group differences in subjects' selection of aggressive and passive response strategies to manage peer provocation, and these differences were most often between the bully and non-bully groups. (As would be expected, it can be noted that the group differences for aggressive response selection are in keeping with those for first and second response choice). There were also a few differences in the likelihood of selecting aggressive and assertive response strategies depending upon the identity of the provocateur.

CHAPTER FOUR

Discussion

4.1 Pretest

The aim of the pretest to identify children with a tendency to bully, children with a tendency to be victimised, and "normal" children was met. The modified self report questionnaire was found to be reliable, the bully and victim factors were independent, and the scales had good internal consistency. This is consistent with Rigby and Slee's (1993) finding that the tendency for children to relate to their peers at school in a bullying or submissive manner can be identified, via children's self-reports, as distinct factors.

On the basis of children's self report and teacher nomination, 10% of children surveyed were identified as tending to bully others, and 11% were identified as tending to be victimised. These percentages are generally consistent with previous research (see Rigby, 1996).

In addition to those children identified as bullies or victims, a small percentage of children identified themselves and/or were nominated by teachers, as being both a bully and a victim. This is consistent with the suggestion that it is too simplistic to view bullying and victimisation as polar opposites (Slee, 1995; see also Smith & Thompson, 1991).

It was on the basis of the stringent criteria for identification as a bully or a victim (i.e. self report and teacher nomination, meeting only one or the other classification), that the sample was chosen for the main study.

4.2 Main Study

The aims of the main study were to examine the relationship between bullying and victimisation, and response access and response decision processes in peer

provocation situations, and to explore the role of contextual factors in this relation. This study aimed to achieve these goals within an exploratory framework which nonetheless offered preliminary tests for a series of predictions based on the Crick and Dodge (1994) model of social information processing. The results of the study lend some support to the broad predictions that bullies, victims, and normal children would differ in their response access or construction, and response decision processes in peer provocation situations, and that these processes are affected by the identity of the provocateur.

As could have been expected, the most significant differences were generally found between bullies and non-bullies (victims and normal children) in their response access or construction of aggressive acts, and response decisions related to aggressive strategies. In addition, where there were significant differences, it was generally the bullies response access or construction and response decisions that differed depending upon the characteristics of the provocateur.

While many of this study's results failed to reach statistical significance possibly because of the small sample size, the patterns of findings were often consistent with the predictions. Following is a discussion of the findings for each set of predictions. When the analysis was purely exploratory, or the pattern of results failed to reach significance, the findings have to be interpreted with even greater caution.

4.2.1 Response Access Predictions

4.2.1.1 Size of response repertoire

Bullies, victims and normal children did not differ significantly in the number of responses they generated in peer provocation situations. While this finding is contrary to previous research involving aggressive and nonaggressive children and adolescents (for example, Richard & Dodge, 1982, Dodge et al, 1986, Slaby and Guerra, 1988), it is consistent with Deluty's (1981) research involving assertive, aggressive, and submissive children, and research by Guerra and Slaby (1991) involving high and low aggressive children.

The lack of significant findings in support of the prediction may have been due to the small sample size. Although the differences were not significant, in half of the scenarios bullies and victims did, in fact, produce fewer responses than normal children. This is consistent with the trends reported by Slee (1993a) in his study of bullies, victims and normal children. If the current pattern of findings could be reproduced with a larger sample, it may lend support to Slee's (1993a) suggestion that compared to their peers, bullies and victims have fewer options to choose from in peer conflict situations, the premise being that, with fewer options, bullies and victims would be more likely to perform an inappropriate response. Such a finding would link up with research that has shown that action is related to the capacity to select behaviours from a potential range of alternative solutions (Mischel, 1973).

Another pattern of non-significant findings was observed, however, which seems contrary to the suggestion by Slee (1993a), and to the implications of Mischel's (1973) research noted above. In the remaining scenarios, bullies actually produced more responses than non-bullies, and victims generated more responses than non-victims (bullies and normal children), in scenes with a victim and a bully provocateur respectively. One explanation could be that in previous research, children were asked to provide solutions to peer provocation. However in the current study, they were asked what they would and could do. Therefore, it could be that bullies and victims are able to produce more responses to provocative victim and bully peers respectively because they are more often exposed to these interactions. Nonetheless, these responses may not always be perceived by bullies and victims as solutions.

In support of this suggestion, when the impact of the provocateur's identity on the size of children's response repertoires was explored, in one scene, victims generated significantly more responses when the provocateur was a bully as opposed to a victim. (While the same pattern of findings was observed in the remaining scene, and for the normal children, these differences were not significant).

In sum, previous findings on the relationship between the size of the response repertoire and social maladjustment were somewhat mixed. The current findings fail

to support the hypothesis that socially maladjusted children have smaller behavioural repertoires (Crick & Dodge, 1994). However, on the basis of the significant difference between victims' total number of responses to provocation by a bully and a victim, the size of the response repertoire continues to be a useful focus. This is providing that future research consider the possible mediating role of peer characteristics in the relationship between the number of responses children can generate in peer conflict situations and their behavioural tendencies. Future methodologies may also need to distinguish between what is a possible response, and what is perceived by bullies and victims to be a solution for managing peer provocation.

4.2.1.2 Response choice - quality and sequence

As predicted, bullies were significantly more likely than non-bullies to report that they would first respond aggressively in peer provocation situations. (It is noted in one scenario, bullies were not significantly more likely than normal children to choose an aggressive first response, although the pattern was in the direction predicted). Further, as expected, bullies were significantly more likely than victims to produce an aggressive second response to peer provocation. In only partial support of the predictions, bullies were significantly more likely than normal children to produce an aggressive second response, but only when the provocateur was a victim. Although the findings were not significant, bullies did select aggressive second responses more often than normal children when the provocateur was also a bully.

These findings are in accordance with Deluty (1981) who found that aggressive children compared to assertive and submissive children, generate a larger number of aggressive responses, and have a higher percentage of such responses in their repertoires for managing interpersonal conflict. However, that bullies were only significantly more likely to make an aggressive second response choice than normal children when the provocateur was a victim, could suggest that response choice is to some extent dependent on the characteristics of the provocateur. Indeed, as expected,

bullies were significantly more likely to choose an aggressive response if the provocateur was a victim as opposed to a bully (although only one of these differences was significant, the other was in the direction predicted). Given the pattern of findings described, it may also be that some differences failed to reach significance due to the small sample size.

With regard to the sequence of response choices, the current findings are inconsistent with Slee (1993a) who found that bullies, victims and normal children each chose a nonaggressive first solution in response to a hypothetical bullying situation. Guerra and Slaby (1991) also failed to find any differences between high and low aggressive children's first response choice (both offered solutions rated as effective) in an interpersonal conflict situation (see also Richard and Dodge, 1982). As suggested earlier, it could be that these discrepancies are due to methodological differences. In the Slee (1993a) and Guerra and Slaby (1991) studies, children were asked to select their best solution. However, in the current study children were asked what they would most likely do. It is quite conceivable that their best solution is not necessarily what bullies would most likely do! Further research is needed to test this proposition.

In sum, the findings generally support the hypothesis that the type of social responses children generate to a particular situation is consistent with their behavioural tendencies (Crick & Dodge, 1994). Bullies' behavioural repertoires for managing peer provocation, at least their first two responses, were generally more aggressive than their peers, and generally more aggressive when the provocateur was a victim as opposed to a bully. This seems to be positively related to the behaviour they exhibit in these situations.

What is not known is the extent to which bullies' aggressive responses are accessed from memory, or the extent to which they are new behavioural strategies constructed in response to the immediate social cues. This information would help to determine if bullies: need help to remember and recall appropriate responses; need help to develop skills in formulating new social responses; or need improvements in

their original response repertoires from which responses are accessed or constructed (Crick & Dodge, 1994). Whatever the case, the findings suggest that the responses available to bullies (their response repertoire) at the response decision stage include many aggressive behaviours.

4.2.2 Response Evaluation Predictions

Bullies evaluated aggressive responses significantly more positively than non-bullies (one bully/control group difference failed to reach significance, perhaps due to the limited sample size). This would appear to be consistent with Crick and Dodge's (1994) hypothesis that favourable response evaluations are related to carrying out that behaviour. However, it is interesting to note that while bullies' evaluations were more positive than others, on average they evaluated the aggressive responses between "wrong" and "not wrong or right".

It could be that perceptions of what is morally right or wrong is not a meaningful dimension for these children, and therefore not relevant to their response selection. Indeed, it could be that Deluty's (1983) "evaluative" dimensions of potency (ie. strong-weak, brave-cowardly, masculine-feminine) would be more meaningful to bullies' response selection. Consistent also with this suggestion, bullies' failed to evaluate aggressive responses differently depending upon the provocateur's identity.

Normal children failed to evaluate assertive strategies more positively than bullies and victims. The average evaluation for each group was between "not wrong or right" and "right". While the differences were not significant, it is interesting to note that bullies consistently evaluated assertive responses more positively than non-bullies. It could be that bullies perceive the direct-action of assertive responses more positively than others (Crick and Dodge, 1994).

Nonetheless, these non-significant findings are inconsistent with Deluty (1983) who found that assertive children evaluated assertive responses as more "good" than aggressive and submissive children, and as more "successful" than aggressive children.

Failure to find any differences between bullies, victims, and normal childrens' evaluations of assertive responses, may have been due to the recognition method used. In fact, Richard and Dodge (1982), found no differences between aggressive and nonaggressive boys in their evaluation of alternative solutions to conflict situations. When given alternative responses all groups consistently chose an effective solution as the best. Thus, it may be that bullies, victims and normal children all recognised that the assertive response was generally "not wrong or right" or "right". (While not directly tested, each group generally evaluated the assertive responses more positively than the passive and aggressive responses).

In all but one comparison, victims evaluated the passive response more positively than non-victims, however only one of these differences reached statistical significance. These non-significant findings are consistent with Deluty (1983) who failed to find any significant differences between assertive, aggressive, and submissive children in their evaluation of submissive responses in conflict situations. However, lack of significant findings in support of the prediction could have been due to the insufficient number of subjects.

While the differences were not significant, victims evaluated the passive responses more positively when the provocateur was a bully as opposed to a victim. If this pattern of findings could be replicated with a larger sample, it may lend support to Crick and Dodge's (1994) hypothesis that favourable assessments of social responses are positively related to their behavioural enactment.

While there were some significant differences between bullies' and non-bullies' evaluations of aggressive responses, the overall pattern of findings fail to support the hypothesis that socially maladaptive children evaluate maladaptive behaviours favourably and adaptive behaviours less favourably (Crick & Dodge, 1994). There was also no support for the hypothesis that response evaluation in peer conflict situations is dependent upon characteristics of the provocateur (see Perry et al., 1990). These findings do highlight a possible need for future research to consider evaluative dimensions that are meaningful to the sample.

4.2.3 Outcome Expectation Predictions

4.2.3.1 Total number of outcome expectations

Bullies and victims failed to generate significantly fewer consequences than others for the aggressive and passive response strategies respectively in peer provocation situations. Further, bullies, victims, and normal children did not differ significantly in the number of consequences they anticipated in response to the assertive strategies for managing peer provocation. Bullies and victims also failed to differ in their number of outcome expectations for the bully and victim provocateur for the aggressive and passive responses respectively.

Although the differences were not significant, consistent with the prediction, in half of the scenarios bullies generated fewer consequences to hypothetical aggressive responses than non-bullies. It could be that the prediction was not supported due to the small sample size. However, in the remaining scenarios, although the differences were not significant, other patterns of findings were observed. Compared to non-bullies, bullies anticipated more consequences for an aggressive action against a bully provocateur, and compared to victims, bullies generated more outcome expectations for an aggressive response to a victim provocateur.

These later findings are inconsistent with the previous research of Guerra and Slaby (1989) involving high and low aggressive children. They also fail to lend support to the suggestion that aggressive children are less able to inhibit aggressive responses due to a lack of awareness of the potential consequences of aggression (Guerra & Slaby, 1989).

With regard to consequences of the passive response strategies, as expected, victims did in fact consistently generate the least number of outcome expectations, however none of these differences were significant. If this pattern of findings could be replicated with a larger sample size, then it may support the notion that children who are victimised fail to recognise all the implications of responding submissively to peer provocation. It could be that this leads victims to inadvertently provide their

provocateur with reinforcement, which in turn contributes to their subsequent victimisation (see, for example, Perry et al., 1990).

Interestingly, for each response strategy, bullies, victims and normal children generally produced the same number or more consequences for bully provocateurs, than they did for victim provocateurs, although of the comparisons that were computed, none were statistically significant.

In sum, these results fail to support the hypothesis that the number of consequences a child generates is positively related to their degree of social adjustment (see Guerra & Slaby, 1989). There is also no support for the hypothesis that this process in dependent upon target characteristics. The lack of support for these hypotheses may have been due to the small sample. However, it could also be that the nature of bullies' and victims' outcome expectations for strategies to manage peer conflict, and the perceived desirability of these outcomes, are more important to their response selection than the number of consequences they can generate.

4.2.3.2 First outcome expectation and desirability of outcome expectations

The following discussion is mostly based on the description of children's first outcome expectations for the aggressive, assertive, and passive response strategies for managing peer provocation.

Aggressive response strategy

When contemplating an aggressive response to peer provocation, more bullies than non-bullies expected to get into trouble, and more victims than bullies anticipated being hurt or threatened, and feared peer retaliation, although these differences were generally not statistically significant. If this pattern of results could be reproduced with a larger sample, it would then be consistent with previous research by Slee (1993a). It would also be in keeping with Perry et al. (1990) who found that when aggressive children contemplate an aggressive act they perceive victimised children as

being more likely to show signs of distress, and being less likely to retaliate, than non-victims.

Interestingly, all children were observed to generally identify negative consequences of responding aggressively to peer provocation, regardless of the characteristics of the provocateur. Indeed, no children reported that the problem situation would be resolved, and few reported that nothing would happen if they responded aggressively. This observation is inconsistent with previous research which has found that compared with their nonaggressive peers, when contemplating aggression, aggressive children are more likely to anticipate positive outcomes such as tangible rewards and a reduction in aversive treatment by peers (Perry et al., 1986; Perry et al., 1990; see also Crick & Dodge, 1989).

These discrepant findings could be due to methodological differences. In previous research, children have been provided with a series of possible outcomes and asked to evaluate the likelihood of those consequences occurring. In the current study, however, children were asked to produce their own response outcome expectancies. Indeed, Guerra and Slaby (1989) found that both high and low aggressive children generated mostly negative consequences for themselves, when they were asked what would happen if they performed an aggressive action in response to a social problem. Thus, it could be that while aggressive children expect more positive consequences for their aggressive acts than others, the negative consequences of their behaviour are more salient. Further, it could be that it is how children evaluate their perceived consequences, as opposed to the outcome expectations per se, that impacts on their response selection.

Indeed, when the provocateur was a victim, bullies valued their perceived outcome expectancies for aggressive acts significantly more favourably than non-bullies. While bullies evaluated their perceived consequences of aggression toward a bully provocateur more favourably than non-bullies, these differences were not significant possibly due to the small sample size. These findings appear to be consistent with Guerra and Slaby (1991) who found that high aggressive boys

evaluated their affective reactions to consequences of aggression by saying they "wouldn't care" and would not be "unhappy". They also appear to be consistent with previous research that has found that bullies experience less empathy than others (for example, Boulton & Underwood, 1992). It must be noted, however, that while bullies evaluated their outcome expectancies as being more desirable than others, on average they evaluated the consequences of aggression somewhere between "bad" and "not bad or good".

As expected, bullies valued the consequences of aggression significantly more when the provocateur was a victim, as opposed to a bully. (It is noted that one difference was not statistically significant, however the effect was in the direction predicted, and may have failed to reach significance due to the small sample). This is consistent with Perry et al (1990). In their study, the most aggression-encouraging outcome values were those reported by aggressive children when contemplating aggression against a victimised peer. Thus, it appears that for bullies, different value is attached to outcomes of aggression when attacking a victim, than when attacking a bully. It could be that these values have an excitatory or inhibitory function on their response selection (see Crick & Dodge, 1994).

Assertive response strategy

Normal children were more likely than bullies and victims to expect that the problem situation would be resolved if they responded assertively, and they were less likely than others to expect that they would be threatened or harmed by this response. (These differences were not compared statistically). These findings appear to be consistent with Crick and Dodge (1989) who found that compared to nonprosocial children, prosocial children expected more positive instrumental outcomes (i.e. the strategy would accomplish an instrumental goal) for compromise strategies (prosocial behaviour) in interpersonal conflict situations (see also Deluty, 1983).

All children valued their perceived outcome expectancies of responding assertively significantly more positively when the provocateur was a victim compared

with a bully (While one difference failed to reach significance, it was in the direction predicted). This consistent pattern of findings lends support to the hypothesis that the desirability of outcome expectations for assertive responses to peer conflict situations is to some extent dependent upon the characteristics of the provocateur.

Passive response strategy

With regard to children's outcome expectations for passive response strategies to peer conflict, one interesting observation was the tendency for more bullies than non-bullies to expect that other people would perceive them negatively, especially if they responded passively to a victim provocateur. Further, fewer bullies than others expected that nothing would happen if they responded passively to a victim peer.

These findings appear to be contrary to Deluty (1983) who found no differences between aggressive, assertive, and submissive childrens' evaluations of submissive responses to peer conflict on dimensions such as "braveness" and "strength". However, these observations are consistent with the suggestion that bully's self esteem may be maintained by the sense of power gained through the domination of those weaker than themselves, such as victims (Slee & Rigby, 1993b). They are also consistent with the finding that bullies valued their perceived consequences of responding passively significantly less favourably than victims when the provocateur was a victim (differences in one scene in the direction predicted failed to reach significance perhaps due to the small number of subjects). Again, these findings seem to highlight the importance of contextual factors in social problem solving. Contrary to predictions, however, victims failed to value the outcomes of passive responses differently for the bully and victim provocateur.

Further in regard to expectations of passive responding to peer conflict, all of the children were more likely to expect retaliation and/or some threat to themselves if they responded passively to a bully compared with a victim. In addition, it was more bullies than victims, and more victims than normal children, who were observed to expect more peer retaliation, and threat or harm to come to themselves if they

responded passively to a bully provocateur. This lends some support to Crick and Dodge (1989) who found that prosocial children compared with aggressive and withdrawn children, expected more positive conflictual outcomes (i.e. the peer would not fight or argue) for avoidant strategies in interpersonal conflict situations.

Summary

These findings lend some support to the broad hypothesis, that bullies, victims and normal children differ in their outcome expectations and their perceived value of those outcome expectancies for different responses to peer conflict. There is also some evidence to support the hypothesis that these processes are dependent upon the identity of the provocateur. However, given the small sample size, and the largely descriptive nature of these findings, they would need to be replicated before any conclusions could be drawn.

Although children often generated several outcome expectancies, it was only within the scope of the current research to describe their first outcome expectation which was considered to be the consequence most salient to them. It would be interesting in future research to consider the multiple consequences that children were found to generate to the various response strategies, and to examine how they ultimately integrate this information to make a response selection (Crick & Ladd, 1990).

4.2.4 Response Efficacy Predictions

Bullies were significantly more confident in their ability to perform aggressive behaviours in response to peer provocation than non-bullies. These findings are consistent with previous research by Perry et al. (1986) involving aggressive and nonaggressive boys (see also Crick & Dodge, 1989).

Compared with victims, bullies were also more confident responding assertively to peer provocation, although not all of the differences reached significance. Although the differences were not all significant, compared to normal children, bullies

were also more confident to respond assertively, however only when the provocateur was a victim. This pattern of results is in keeping with research that has shown that aggressive children have reported feeling more confident than their peers about performing competent responses (see Crick & Dodge, 1989). As noted, it has been suggested that it may be the direct-action of some competent responses that aggressive children may feel more confident performing (Crick & Dodge, 1994).

The current findings also highlight the importance of the provocateur's identity on efficacy evaluations. As expected, bullies were significantly more confident to respond aggressively when the provocateur was a victim as opposed to a bully. Bullies were also significantly more confident to respond assertively when the provocateur was a victim as opposed to a bully.

As expected, victims were significantly more confident than bullies in their ability to respond passively, however only to a bully provocateur. These findings are not surprising in light of research that shows victims' generally poor perception of their social competencies (see Slee & Rigby, 1993a). They are also in accordance with the findings that the tendency to be victimised in associated with introversion (Slee & Rigby, 1993b), and an external locus of control (Slee, 1993a) . Finally, that bullies lack confidence in their ability to respond passively is also consistent with previous research (see Crick & Dodge, 1989).

While victims were also more confident than normal children to respond passively to a bully provocateur, these differences were not significant. This finding, however, is consistent with Deluty (1983), who found few differences between assertive and submissive children in their response evaluations.

In sum, these findings appear to lend some support to the hypothesis that children's self-perceived competencies are related to their choice of various response strategies (see Crick & Dodge, 1994). In addition, there is also support for the hypothesis that perceptions of self efficacy to perform various responses in conflictual situations can be dependent upon the characteristics of the provocateur.

4.2.5 Response Selection Predictions

As expected, bullies were significantly more likely to select aggressive response strategies, and less likely to select passive responses in peer provocation situations, than non-bullies. These findings are in keeping with the personality characteristics of children with the tendency to bully as described by Olweus (1978) and Rigby (1996), and in particular, bullies' need for power and dominance (Olweus, 1993, see also Boulton & Underwood, 1992). They are also consistent with Crick & Dodge (1989) who found that compared with nonaggressive peers, aggressive children reported more frequent use of physical aggression and less frequent use of avoidant behaviours in peer conflict situations.

As predicted, the characteristics of the provocateur were also related to bullies' response selection. Bullies were significantly more likely to select an aggressive response strategy when the provocateur was a victim as opposed to a bully, although only one of the two differences reached significance perhaps due to the small sample size. Consistent with this, bullies were also more likely to select assertive responses if the provocateur was a victim compared with a bully, although these differences were not significant. These findings appear to be in keeping with the suggestion that bullies do, in fact, "target" their victims.

Contrary to predictions, victims did not differ significantly from normal children in their selection of passive responses. (In only one scene when the provocateur was a bully, victims were significantly more likely to select a passive response than normal children).

Victims were significantly less likely to select assertive responses when the provocateur was a bully compared with a victim. (Only differences in one scene reached significance, however the other pattern was in the direction predicted). Similarly, they were less likely to select aggressive responses, and more likely to select passive responses when the provocateur was a bully as opposed to a victim, although these results were not significant. This pattern of findings is not inconsistent

with claims that victims can be timid, non-assertive, and physically weak (Rigby, 1996).

Although most of the differences were not significant, as predicted, normal children were more likely than bullies and victims to select assertive response strategies (see Crick & Dodge, 1989).

In sum, together with the findings for subjects' response choice, there is some support for the link between response selection and behavioural tendencies. These findings lend some support to the hypothesis that socially maladjusted children are more likely than others to make response selections that result in an attempt to enact behaviour that is maladaptive. The findings also lend some support to the importance of considering the identity of the target in children's response selections in peer conflict situations.

4.2.6 Comment On The Two Scenes

Although it was not within the aims of the current research to directly test differences between them, several observations can be made regarding children's responses to the corridor and basketball scene. As noted, two scenes were included for reliability purposes, specifically, to consider the generalizability of bullies' and victims' styles of information processing in peer provocation situations. Contrary to expectation, there seemed to be some differences in children's responses to the two scenes. This observation is not entirely inconsistent with the suggestion that bullying and victimisation is related to specific social cognitive processes and behavioural tendencies. In fact, this observation would appear to add support to the notion of the importance of contextual factors in social information processing.

It could be that the setting (school playground versus school corridor) contributed to these few differences. Where significant differences were reported in the basketball scene and not the corridor scene, it could also be that the basketball scene was perceived as being of greater threat. This would be consistent with previous research that has shown that social information processing deficits are exacerbated under

conditions of threat to self (Dodge & Somberg, 1987). Similarly, it may be that the basketball scene was more shocking and painful than the corridor scene. Future research with larger samples may be able to include formal tests of situation differences.

4.3 Study Evaluation

Several strengths of the current research can be noted. The stringent criteria used to identify the sample for study ensured that those children interviewed could reasonably be expected to represent boys with the tendency to bully, boys with the tendency to be victimised, and boys who were not involved in either.

The current study considered the bully/victim problem from a social cognitive perspective, which has been little researched. Of the research that has studied the social cognitions of bullies and victims per se, the focus has tended to be on aggressive response strategies, and failed to considered perceptions of other maladaptive responses or prosocial response strategies. In addition, the current research considered all the processing mechanisms of the response access and response decision stages thought to be relevant to the social information processing - social maladjustment relation.

Last, as previously noted, only a limited number of studies have interviewed children identified as bullies or victims. Interviewing bullies and victims allowed them to respond freely and spontaneously. This provided insight into bullies' and victims' unique experiences and thinking related to peer conflict.

Despite these strengths, however, the results must be interpreted with caution due to several methodological weaknesses. Due to the poor return rate of the parental consent form, and the stringent selection criteria, the sample sizes were small and could have been biased. The deliberate focus on boys also means the results cannot be generalised to girls. Further, due to limited resources, the interviewer was not blind to subjects' group membership.

In this study, the measures of social information processing were dependent upon the child's comprehension and expressive abilities. However, language ability was not controlled for. Further, due to the number of comparisons that were computed, the significance of the results may be affected by an inflated Type 1 error rate. Finally, the limitations of nonparametric statistics, namely their low statistical power, must also be acknowledged.

4.4 Implications

In addition to acknowledging the strengths of the current research and addressing its methodological limitations, several recommendations are made for future research. As the current study does not lend itself to causal interpretation, it is recommended that future research address the causal nature of the social information processing - social adjustment relation (Crick & Dodge, 1994). Specifically, it should examine the causal nature of the contribution of social information processing deficits to the experience of bullying and victimisation. Research should also consider the mediating role of contextual factors in the relationship between social cognitive processes and these styles of personal relating. This would allow for examination of the possible different impact of contextual factors on various processing mechanisms (e.g. it might be that target identity is related to self efficacy to perform aggressive responses, but is not related to aggressive response evaluation).

Further, on the basis of somewhat inconsistent findings across the dependent variables, future research should examine the relationship between the response access or construction, and response decision processes, for bullies and victims. In addition, research should investigate how children integrate the information from these processes to make a response selection. This would provide a better understanding of the relative contribution of these processes to bullies' and victims' response selection.

Last, it has been suggested that bully and victim is an over-simplified typology. Olweus (1978) distinguished between passive victims, who were anxious

and failed to defend themselves, and provocative victims, who were hot tempered, complained of being victimised, and fought back. Perry et al. (1990) also distinguished between high and low aggressive victims. Thus it is recommended that these possible typologies be considered in future research on the role of social cognitive processes in bullying and victimisation.

4.6 Conclusion

This research focused on the response access or construction and response decision processes of boys who tend to bully and boys who tend to be victimised, in ambiguous provocation situations with a bully and a victim provocateur. It was a comprehensive study of a small sample of carefully selected children. However, due to the lack of power and the numerous comparisons, the results have to be replicated in a new and larger sample before any conclusions can be made. Nevertheless, on the basis of these preliminary findings, children's response access and response decision processes appear to be a useful avenue for extending our understanding of the bully/victim problem.

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Appendix A: Screening Questionnaire

AUSTRALIAN NATIONAL UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

This is a survey about students' experiences at school. It is the first part of a two part study. Some of you will be invited to participate in the second part of the study. Part two is about what you do in different situations that happen at school.

This is NOT a test, so there are no 'RIGHT' or 'WRONG' answers in this survey. However, for the survey to be useful to students, it is important that you respond as truthfully as possible. It is also important to answer ALL the questions. You have as much time as you need to complete the questionnaire.

Your answers will be treated as completely confidential. That means that I am the ONLY person who will see your responses. Your teachers and parents will NOT see your answers and the final survey results will not talk about any individual student. The final report will summarise your answers.

If you are interested, your principal will have a report on the survey findings when it is finished.

Thank you for your help.

Jane Drinkwater
Student
Masters of Clinical Psychology Program

Name: ..... **Sex: Male Female**

Please show how often the following statements are true about you. To do this, read each statement carefully and CIRCLE ONE of the answers underneath the statement.

1. I like playing sport

Never Once in a while Pretty often Very often

2. Other kids make fun of me

Never Once in a while Pretty often Very often

3. I get good marks in class

Never Once in a while Pretty often Very often

4. I enjoy upsetting wimps

Never Once in a while Pretty often Very often

5. I get called names by other kids

Never Once in a while Pretty often Very often

6. I like to get into a fight with someone I can easily beat

Never Once in a while Pretty often Very often

7. I play up in class

Never Once in a while Pretty often Very often

8. I get picked on by other kids

Never Once in a while Pretty often Very often

9. I get hit and pushed around by other kids for no reason

Never Once in a while Pretty often Very often

10. I like to make other kids scared of me

Never Once in a while Pretty often Very often

11. I'm scared of what other kids might do or say to me

Never Once in a while Pretty often Very often

12. I fight if anyone picks on me

Never **Once in a while** **Pretty often** **Very often**

13. Other kids talk about me behind my back

Never **Once in a while** **Pretty often** **Very often**

14. I pick on wimps to make my friends laugh

Never **Once in a while** **Pretty often** **Very often**

15. I feel I can't trust other kids

Never **Once in a while** **Pretty often** **Very often**

16. I share things with others

Never **Once in a while** **Pretty often** **Very often**

17. Other kids take or break my things

Never **Once in a while** **Pretty often** **Very often**

18. I'm part of a group that goes around teasing other kids

Never **Once in a while** **Pretty often** **Very often**

19. Other kids threaten to hurt me

Never **Once in a while** **Pretty often** **Very often**

20. I enjoy helping others

Never **Once in a while** **Pretty often** **Very often**

21. I like hassling kids who are nerds

Never **Once in a while** **Pretty often** **Very often**

22. I like it when other kids are afraid of me

Never **Once in a while** **Pretty often** **Very often**

23. I like school

Never **Once in a while** **Pretty often** **Very often**

Appendix B: Teacher Nomination Form

AUSTRALIAN NATIONAL UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

'The Impact of Children's School Experiences on Social Problem Solving'

Using the definitions below, please identify those 5th and 6th grade children in your class with a tendency to bully others, and those with a tendency to be victimised by their peers. This information will be used to help identify the target samples for this research. This information will remain strictly confidential with only me having access to it.

Bullying is defined as the wilful, conscious desire to hurt another and put her/him under stress. Bullying often occurs repeatedly and over time, and often it is unprovoked. Children with a tendency to be victims, are those who are repeatedly bullied by others. They are often of weaker strength. ('Strength' can be physical, psychological, or emotional.)

Children with a tendency to bully others:

.....

.....

.....

.....

Children with a tendency to be victimised by their peers:

.....

.....

.....

.....

Thank you for your co-operation.

Jane Drinkwater

Appendix C: Parent/Guardian Consent Form

AUSTRALIAN NATIONAL UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

Request for Parental/Guardian Consent

I am a Child Psychologist and I am also a student in the Masters of Clinical Psychology Program at the Australian National University. As part of this program I am conducting a survey of primary school students of their experiences at school and their responses to socially difficult situations. Specifically, I am interested in how students' different school experiences affect how they negotiate challenging social situations. I hope that the findings of this research will contribute to the design of appropriate social skills programs for primary school students. One aim of such programs is to reduce aggression in schools.

Participation in the study will be voluntary. Students will be surveyed during class time and the questionnaire will take approximately **5 minutes** to complete. Some students will be invited to participate in an interview that will take approximately 20 minutes. The survey and interviews will be conducted by me. Individual students' responses will remain strictly confidential, with only me and my supervisor having access to this information.

Information on the study's outcomes will be made available to the principal on completion and can be accessed by the students and you, as parents and guardians. The results will not identify any individual students.

The Ethics in Human Experimentation Committee of the Australian National University, together with the ACT Department of Education and Training and your child's school principal, have granted approval for this research. I now seek your consent for your child to participate in this study. I ask you to please complete the form below and return it to your child's class teacher as soon as possible.

If you have any questions or concerns about the study or your child's participation, I can be contacted on 293 5980 (W).

Thank you.

Jane Drinkwater

I .....Parent/Guardian of .....
DO/DO NOT give my consent for my son/daughter to participate in the survey of student responses to social situations to be conducted by Jane Drinkwater, Masters of Clinical Psychology Program, Australian National University.

Signature..... Date.....

Appendix D: Information for Teachers

AUSTRALIAN NATIONAL UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

Impact of School Experiences on Social Problem Solving

The following information is to be read to the students by the class teacher or year coordinator at the time of issuing the request for parental/guardian consent form.

"Jane Drinkwater is from the Australian National University and she is doing a study on students' experiences at school and how students solve difficult situations at school. Jane has asked us to help her, and without your help, she can't do the study. Being involved will mean filling out a multiple-choice questionnaire in class time that will take less than 5 minutes. Jane might ask some students to meet with her to talk about solving different situations. If she asks you, it will also be during class time."

"Your parent's or guardian's need to know about the study before you become involved, and she has asked you to give them this form. This is a permission form that gives parents and guardians information on the study. This form MUST be returned ASAP, and no later than one week."

"Jane would like to thank you for your participation."

Thank you to all staff

Appendix E: Interview Schedule

AUSTRALIAN NATIONAL UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

Impact of School Experiences on Social Problem Solving

Interview Schedule Instructions

The following instructions are to be read to subjects prior to the interview.

"This is an interview about what you might think or do in different situations that might happen at school. I'm going to read you four pretend stories about things that might happen. After each story, I'm going to ask you some questions."

"This is not a test, so there are no right or wrong answers. I'm really interested to know what you think, and what you might do. All of your answers will be confidential. That means that I won't tell anyone what you said, and when I write a report, you won't be identified."

"It's important to listen carefully. If you don't understand a question, or if you want me to repeat the story, you can ask me. To help you remember, and to help you answer the questions, you can look at these (show scenario one in note form, and likert scale cards)."

"This interview usually takes about 20 minutes. Is there anything you want to ask me before we start?"

INTERVIEW SCHEDULE

Scenario 1

After lunch you're walking down the corridor to your class room. It's crowded and a boy going in the opposite direction crashes into you. It's a boy who is well known for bullying other kids. He's in the same grade as you, but he's in a different class. Other kids turn around to see what has happened.

What would you <u>most likely</u> do or say in this situation?

.....

.....

What would be the <u>next most likely</u> thing you would do or say in this situation?

.....

.....

What else <u>could</u> you do or say in this situation?
(Probe: What else could you do or say? Is there anything else you could do or say?)

1. .....

2. .....

3. .....

4. .....

What are ALL the things that might happen if you *ran back to your class*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *running back to your class* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *run back to class*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *shoved the boy hard*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *shoving the boy hard* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really

How difficult would it be for you to actually *shove the boy hard*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this ?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *said to the boy to please look where he's going next time*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *saying to the boy to please look where he's going next time* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really

How difficult would it be for you to actually *say to the boy to please look where he's going next time*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

Scenario 2

After lunch you're walking down the corridor to your class room. It's crowded and a boy going in the opposite direction crashes into you. It's a boy who always gets teased and picked on at school. He's in the same grade as you and in a different class. Other kids turn around to see what has happened.

What would you most likely do or say in this situation?

.....

.....

What would be the next most likely thing you would do or say in this situation?

.....

.....

What else could you do or say in this situation?
(Probe: What else could you do or say? Is there anything else you could do or say?)

1. .....

2. .....

3. .....

4. .....

What are ALL the things that might happen if you *ran back to your class*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *running back to your class* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *run back to class*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *shoved the boy hard*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *shoving the boy hard* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really

How difficult would it be for you to actually *shove the boy hard*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this ?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *said to the boy to please look where he's going next time*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *saying to the boy to please look where he's going next time* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really

How difficult would it be for you to actually *say to the boy to please look where he's going next time*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

Scenario 3

At recess you're walking across the school yard by yourself. You see a boy that always gets teased and picked on, playing with a basketball. He's in the same grade as you, but he's in a different class. In the middle of the school yard you get hit in the head by the basketball. Other kids stop to see what has happened.

What would you most likely do or say in this situation?

.....

.....

What would be the next most likely thing you would do or say in this situation?

.....

.....

What else could you do or say in this situation?
(Probe: What else could you do or say? Is there anything else you could do or say?)

1. .....

2. .....

3. .....

4. .....

5. .....

What are ALL the things that might happen if you *ran away as fast as you could?*
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be for you?.....

Do you think *running away as fast as you could* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *run away as fast as you could*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this ?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *threw the ball at the boy's head?*
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *throwing the ball at the boy's head* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *throw the ball at the boy's head*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *said to the boy to please watch where he throws next time*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *saying to the boy to please watch where he throws next time* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *say to the boy to please watch where he throws next time*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

Scenario 4

At recess you're walking across the school yard by yourself. You see a boy that is well known for bullying other kids, playing with a basketball. He's in the same grade as you, but he's in a different class. In the middle of the school yard you get hit in the head by the basketball. Other kids stop to see what has happened.

What would you most likely do or say in this situation?

.....

.....

What would be the next most likely thing you would do or say in this situation?

.....

.....

What else could you do or say in this situation?
(Probe: What else could you do or say? Is there anything else you could do or say?)

1. .....

2. .....

3. .....

4. .....

5. .....

What are ALL the things that might happen if you *ran away as fast as you could?*
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be for you?.....

Do you think *running away as fast as you could* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *run away as fast as you could*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this ?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *threw the ball at the boy's head?*
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *throwing the ball at the boy's head* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *throw the ball at the boy's head*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

What are ALL the things that might happen if you *said to the boy to please watch where he throws next time*?
(Probe: What else might happen? Is there anything else that might happen?)

1. .....

How good or bad would that be?.....

2. .....

How good or bad would that be?.....

3. .....

How good or bad would that be?.....

4. .....

How good or bad would that be?.....

Do you think *saying to the boy to please watch where he throws next time* is a right or wrong thing to do?
(Show RIGHT/WRONG card)

Really wrong Wrong Not wrong or right Right Really right

How difficult would it be for you to actually *say to the boy to please watch where he throws next time*?
(Show HARD/EASY card)

Really hard Hard Not hard or easy Easy Really easy

How likely is it that you would do this?
(Show NOT LIKELY/ HIGHLY LIKELY card)

Not likely Small chance Maybe/maybe not Probably Highly likely

That's the end of the interview. Thank you for helping. Do you have any questions?

Appendix F: Response Coding

Response access or construction

For each scenario subjects were asked what they would most likely and next most likely do, and what else they could do. The content, total number, and order of subject's responses to each scenario were used to assess response access. To assess the content of the response repertoire, responses were analysed by means of content analysis and the following categories were identified: aggressive, assertive, passive, avoidant, apology/help, report to authority, depends on intent, no response or do not know, and other.

Descriptions of each response category are as follows. Aggressive responses included physical violence, verbal abuse, obscene gesturing, and threatening behaviour. For example, "I'd hit him", "Chuck the ball at his head", "Tell him I'd get him after school", "Shove him back", "Call him a wuss", "Give him the finger", "Get my brother onto him". Assertive responses included non aggressive statements to the provocateur such as "It hurts getting hit by a basketball, look where you're throwing" and "Look out next time when it's crowded here". The assertive response category also included requests for further information and requests for an apology. For example, "Did you see me on the basketball court when I got hit?", "Did you bump into me on purpose?", and "That hurt, I'd like you to apologise". Passive responses included doing nothing, ignoring the provocation, walking away, and playing with other children. Compared to passive responses, the avoidant response category included statements that suggested a more active response such as "I'd run away", "I'd go and hide in the library", "Stay away from the basketball court". Responses in the report to authority category included, "Tell the teacher", "I'd go to the principal", and "Tell the bully's parents". Apology and help responses included "I'd tell him it was okay and ask if he was okay", "Help him up", "I'd say excuse me", "Apologise for getting in his way", "I'd ask him if he wanted to be my friend". Some children reported that how they responded would depend upon the peer's intent. These

responses were coded as such. The other category included those responses that did not fit in any of the above categories. For example, "I'd tell the other kids not to look".

The above categories were later collapsed into non aggressive response (all categories with the exception of the aggressive response category) and aggressive response (this was the original aggressive response category only).

Size of the response repertoire was the sum of responses to the questions what would they most likely and next likely do, and what else they could do.

Response evaluation

For each scenario, subjects were asked to evaluate a hypothetical passive, aggressive, and assertive response on a five point scale: very wrong, wrong, not right or wrong, right, very right. Responses were coded 1 to 5 with 1 being very wrong and 5 being very right.

Outcome expectation

For each scenario, subjects were asked to identify what they thought would happen if they offered an aggressive, passive and assertive response. To assess outcome expectation, the content, total number and desirability ratings of those expectations were considered. The following categories were used to code the responses: negative perception of self by others, trouble with authority, threat or harm to the target peer, passive response by the target peer, immediate threat or harm to self, ongoing retaliation, problem resolved, start a fight, other, no response or do not know.

Descriptions of the response codes are as follows. Negative perception of self by others included statements such as "He'd think I was scared of him" and "Other kids would think I was a wimp". Trouble with authority included teachers, the principle and parents. For example, "He'd dob and I'd get a detention", "My parents would ground me". Responses included in the category, threat or harm to the target peer were, "He'll (target peer) get hurt", "He'll (target peer) feel left out", "He'll (target peer) feel like it's his fault". Items in the passive response by the target peer category

included "He'd run off". Immediate threat or harm to self included verbal abuse, including teasing and use of sarcasm, and physical assault. For example, "He'd bash me", "I'd get pounded", and "He'd laugh at me if I said that and call me a name". Responses coded as retaliation differed from those in the immediate threat or harm to self category in that the threat to self was ongoing. For example, "He'll keep bashing me at lunch", "He'll keep doing it.....it won't stop", and "He'll get his big brother or friends to keep getting me". Problem resolved responses included "He'd listen", "He'd say sorry", "It wouldn't happen again" and "He'd leave me alone". Start a fight responses included, for example, "A fight would break out", and "He'd fight back". Finally, the other category included those responses that did not fit any of the above categories. For example, "He'd feel happy because I didn't bash him", "I'd feel guilty", "He'd get away with it", and "I'd feel good that I got him".

Total number of outcome expectations was the sum of responses given for each hypothetical response (passive, aggressive and assertive).

To assess the desirability of outcome expectations, for each outcome expectation identified, subjects were asked to rate how good or bad it would be. This was reported on a 5 point scale: very bad, bad, not good or bad, good, and very good, and was coded 1 to 5 with 1 being very bad and 5 being very good. The total desirability ratings for each response type (aggressive, passive and assertive) was divided by the number of outcome expectations for that response, to provide a mean desirability rating.

Response efficacy

For each scenario, subjects were asked to identify how difficult it would be for them to perform a passive, an aggressive and an assertive response. Response categories were very hard, hard, not hard or easy, easy and very easy. Responses were coded 1 to 5 with 1 being very hard and 5 being very easy.

Response selection

For each scenario, subjects were asked to rate how likely it was that they would perform a passive, an aggressive and an assertive response. Response categories were

not likely, small chance, maybe or maybe not, probably, and definitely, and were coded 1 to 5 with 1 being not likely and 5 being definitely.